Kant, Husserl, and Analyticity

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This study concerns the nature and role of analyticity in the work of Immanuel Kant and Edmund Husserl. Its initial goal is that of clarifying the place of analytic judgment in Kant's critical project. Against the widely held assumption that analytic judgment has no role to play in the critical project, I show that analytic judgment has a precise and genuinely important role to play in the context of Kant's metaphysics. Analytic judgment has the role of clarifying our a priori conceptual repertoire and thus of making possible the synthetic a priori judgments that are properly constitutive of metaphysics. The next goal of the study is that of unifying and defending Kant's various characterizations of analytic judgment. Whereas a number of commentators have suggested that Kant is vague or ambivalent as regards the properties of analytic judgment, I show that we can extract a clear, consistent picture of analytic judgment from his work. The key to seeing this, I argue, is becoming clear on Kant's basic assumptions concerning concepts, logic, and propositional form. Subsequently, I turn to Husserl. Picking up on the fact that for Husserl, too, analyticity has metaphysical, or ontological significance, I spell out his conception of analyticity in detail. I show that analyticity for Husserl embraces two essentially symmetrical domains of law: the a priori laws of objective givenness and the a priori laws of propositional form. I then bring Husserl and Kant together. After showing that Husserl fails to capture the essence of Kant's theory of analytic judgment, and so fails to see exactly where he stands relative to Kant, I argue that what ultimately

distinguishes Husserl from Kant is the claim that analytic truth is properly articulated in a purely formal context. I show that this departure from Kant has extremely significant consequences. For example, it enables Husserl to describe whole *systems* of judgment, such as mathematics or logic, as analytic; and it enables Husserl to defend the possibility of analytic judgments having empirical content.

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Introduction

In the Introduction to the first edition of *Critique of Pure Reason*, Kant proposes an apparently exhaustive distinction between two different kinds of subject-predicate judgment. "In all judgments in which the relation of a subject to the predicate is thought", he explains, "this relation is possible in two ways". Either the predicate concept already belongs to the subject concept, "as something that is (covertly) contained in this concept", or the predicate concept "lies entirely outside" the subject concept. In the first case, we have what Kant calls an 'analytic' judgment; in the second case, we have a 'synthetic' judgment " (A7/B10).[1]

Why does Kant introduce this distinction? Is it merely a formal distinction for the sake of a formal distinction? On the contrary, the context in which Kant introduces this distinction makes it clear that he has something rather more ambitious in mind. What Kant wants to do, it seems, is to illuminate the nature of scientific inquiry. By developing a language in which to characterize the *kinds* of judgments that this or that science generates, Kant hopes to shed light on the sciences themselves.

Mathematics offers a good example of what Kant has in mind here. Just a few lines after he first introduces the analytic-synthetic distinction, Kant takes up the judgment 7 + 5 = 12. He notes that while this judgment might look initially like an

[1] References to the *Critique of Pure Reason* will be given, as above, as parenthetical citations specifying the edition(s) of the first *Critique* to which I am referring and the page number on which the passage in question appears. The page numbers are taken from the Academy edition of Kant's works. (The A-edition of the *Critique of Pure Reason* is the third volume in the Academy edition; the B-edition of the *Critique of Pure Reason* is the fourth volume). References to other works by Kant will be given as parenthetical citations listing the volume and page number from the Academy edition. All quotations of Kant in English are taken from the Cambridge Edition of the Works of Immanuel Kant (Cambridge University Press).

analytic judgment, because it might look as if the concept of the number 12 is contained in the concept of the sum of 7 and 5, this appearance is deceptive. In reality, Kant suggests, the judgment is synthetic in nature: when we reflect on the concept of 7 + 5, we find that the concept 12 is actually not contained in the former after all. This makes possible an important conclusion about mathematics in general: although the judgments of mathematics are manifestly a priori, in the sense that they hold with absolute necessity and can be known without recourse to experience, they do not owe their apriority to their formal, propositional structure. This in turn makes possible an important task for the philosopher of mathematics—that of unearthing the extra-conceptual principle on which the apriority of mathematical judgments actually rests. Given that 7 + 5 = 12 is not simply a statement of identity, how can we explain the fact that this judgment admits of no counter-example and can be grasped independently of experience?

The case of natural science is similar. Although we might think that judgments like "matter persists" are analytic, because we might think that what distinguishes matter as such is the fact that it survives the deformation and reformation to which it is subject, reflection on what we actually *think* in the concept *matter* suggests that this is not the case. According to Kant, what we actually think in the concept *matter* is "only its presence in space through the filling of space" (B18). The understanding that matter endures across changes in its sensible properties reflects a logically subsequent judgment, a judgment that is synthetic in the sense that it draws together essentially distinct concepts. How, therefore, are we to explain the apparent necessity of this judgment? Again, since we cannot appeal to propositional form or to conceptual content, we are obliged to seek out a "completely different principle". Supposing that we can identity

such a principle, according to Kant, then it will be possible to give a meaningful account of natural scientific judgments like "matter persists".

The case of metaphysics is slightly different. As Kant explains in the Preface to the second edition of the first *Critique*, he is less concerned to understand how metaphysics actually works than to reform it. Since metaphysics has hitherto been "a mere groping, and what is the worst, a groping amount mere concepts", it is necessary to set metaphysics on a more fruitful, progressive path. Having just learned something about successful sciences such as mathematics and natural science, it is possible to see what this will entail. Rather than remaining at the level of conceptual analysis, metaphysics should pursue conceptual *synthesis*. Like mathematics and natural science, metaphysics should seek out the principle that will enable it to grasp the a priori relations between essentially distinct concepts.

What, therefore, can we conclude regarding scientific inquiry? On the one hand, it looks as though the sciences that Kant is concerned with are strongly oriented toward the production of synthetic judgments. Conversely, it looks as if analytic judgment plays no real role in scientific inquiry. In each case, the idea of analytic judgment seems to be introduced in a purely negative sense—as way of clarifying what successful sciences are not, or should not, be engaged in.

This, perhaps, is one way of understanding a widespread tendency, that of illustrating Kant's theory of analytic judgment by means of the judgment "all bachelors are unmarried men". Perhaps since Kant does not give analytic judgment anything to *do*, epistemologically speaking, it is appropriate to exemplify analytic judgment by means of a judgment that *does* very little.

In some ways, the point of departure for the first part of this study is simply the following question: to what extent does this universally adopted example capture what Kant has in mind when he talks about analytic judgment? What I hope to show, ultimately, is that this example is deeply misleading as a way of representing Kant's theory of analytic judgment. Whereas this example suggests that analytic judgment is a matter of making explicit the significations that attach to everyday terms, what I will show is that analytic judgment, for Kant, is a way of making explicit the content of our a priori conceptual repertoire. Rather than a formula for the production of verbal truisms, analytic judgment represents the initial stage of metaphysical inquiry.

This calls for some explanation. Above, I indicated that Kant wants to turn metaphysics away from conceptual analysis; just a moment ago, however, I suggested that Kant sees a role for conceptual analysis in metaphysics after all. The key to resolving this apparent contradiction is to see that Kant is not recommending the analysis of just any arbitrarily summoned concept: he is recommending the analysis of those concepts that are involved in the cognition of appearances. The problem with metaphysics hitherto, Kant thinks, is that it has been oblivious to this restriction, and so has sought to generate truths on the basis of concepts having no role in the cognition of appearances, concepts like *God*, or *world*. What metaphysics should do, he thinks, is to interrogate those a priori concepts that are implicated in our sensible experience—first by analyzing those concepts, and then by explaining how those concepts come to be augmented synthetically in the context of experience.

Of course, this does not yet tell us that analytic judgment is oriented exclusively toward metaphysics. On the contrary, we have several good reasons for thinking that this

is not the case. First, nothing in the definition of analytic judgment that I cited above suggests such a restriction; second, several of Kant's own examples of analytic judgment, like 'gold is yellow metal', are clearly not metaphysical judgments.

Both points are well taken: although Kant does nothing to encourage the view that analytic judgment is a matter of unpacking mundane verbal meanings, he also does very little to suggest that analytic judgment is a matter of unpacking a priori metaphysical concepts. There are, however, two reasons for thinking that analytic judgment is oriented principally towards its employment in the context of metaphysics. First, as Kant himself more or less says, analytic judgment is only epistemically valuable in the context of metaphysics. To the extent that analytic judgment is possible in the context of mathematics or natural science, it is epistemically redundant: it amounts to the mere recapitulation of antecedently adopted definitions. Second, and most importantly, analytic judgment can only be successfully defended in the context of metaphysics. Given Kant's view that an analytic judgment is an absolutely a priori truth, meaning a judgment that holds necessarily and universally of some particular class of objects or events, what we will find is that an analytic judgment can only be a judgment having a metaphysical concept like *substance* or *cause* in its subject position.

Establishing this result will occupy our attention for the first four chapters of this study. In Chapter Five, we will turn to one of Kant's most important successors, Edmund Husserl, and explore the notion of analyticity that he develops in works spanning the first three decades of the twentieth century. Why Husserl? Why not one of the many other philosophers who take up the idea of analytic judgment in Kant's wake? The answer is that Husserl is unique in recognizing the genuinely metaphysical import of analytic

judgment. Husserl follows Bolzano and Frege in emphasizing, against Kant, that analyticity is function of logical or propositional form; but Husserl distinguishes himself from these thinkers in maintaining that analyticity also has a genuinely metaphysical, or ontological dimension. What Husserl calls an analytic law is a law that holds unconditionally and universally of all objects whatsoever.

What does Husserl *contribute* to the development of the Kantian idea of analyticity? On the one hand, he contributes a clearer and more explicit picture of analyticity than Kant himself does: as I have already suggested, Kant is vague as regards the overall methodological significance of analytic judgment. On the other hand, and much more significantly, Husserl succeeds in broadening the scope of the analytic, and to do so without departing from the spirit of Kant's doctrine. This second point requires some explanation.

For Kant, an analytic judgment captures the strictly logical element in our a priori cognition of objects. Whereas a synthetic a priori judgment like 'all events have causes' tells us something about the material reality of objects, an analytic judgment like 'a cause is something that allows an inference to something else' tells us just what is logically implicit in the experience of causation, namely, a necessary relation between two things. Husserl, for his part, agrees with this basic representation of analyticity: he thinks that analytic laws capture the logical, or 'categorial', formation to which objects are subject. What Husserl contributes is a more far-reaching understanding of categorial formation. For Husserl, categorial formation does not extend just to objects of experience; it extends as far as the 'manifolds' that are the objective correlates of deductive theories. Thus, it extends as far as the objective correlate to Euclidean geometry, and the objective

correlate of Newtonian physics. This in turn means that analytic law extends further than the laws that govern the objects of experience; it encompasses the laws that govern highly complex, relationally ordered manifolds. From Husserl's perspective, there is no qualitative difference between these laws and the strictly formal laws that we bring to bear directly on experience. Both sets of laws bear on objects independently of their material specificity; hence, both sets of laws are analytic.

The plan going forward is as follows. I begin, in Chapter One, by considering three of Kant's important predecessors, Locke, Leibniz, and Hume. I note that while all three come to something like the analytic-synthetic distinction, none of them give analytic judgment any real work to do relative to synthetic judgment. In other words, none of them think that identical, or tautological judgments have any role to play in the progression of knowledge. This, I suggest, stands in contrast to Kant. I suggest that despite initial appearances to the contrary, analytic judgment for Kant is not simply a foil for the *idea* of synthetic a priori judgment. Rather, analytic judgment performs an important methodological role relative to synthetic a priori judgment. It allows us to justify the syntheticity of synthetic a priori judgments; and more importantly, it puts us in a position to *formulate* synthetic a priori judgments. Once we have clarified the content of this or that a priori concept analytically, Kant explains, it becomes possible to explain how the concept in question is realized in the context of spatio-temporal experience.

In Chapter Two, I try to develop a picture of what an analytic judgment actually looks like. This means working through Kant's notoriously varied definitions of analytic judgment, including the 'containment' definition cited above; and it means working through the various formal, modal, epistemic, and semantic properties that Kant attributes

to analytic judgment. In the second half of the chapter, I catalogue the many possible objections that arise from this picture of analytic judgment, for instance, the charge the idea of 'containment' lacks any clear, non-metaphorical meaning.

In Chapter Three, I temporarily set aside these concerns in order to demonstrate several crucially important facts about Kant concepts. I show that concepts, for Kant, are not simply arbitrarily constructed bundles of meaning, but representations that bear a precisely specifiable relation to a corresponding object. Most importantly, I show that in the case of the pure concepts of the understanding, this relation is secured a priori.

Chapter Four takes up the narrower problems canvassed in Chapter Two, namely, the problems that bear on Kant's specific formulation of analytic judgment. What I try to show is that these problems can largely be resolved, and that the key to resolving them lies in the understanding of concepts developed in Chapter Three. For example, by emphasizing that a concept embodies all and only the essential features of the corresponding object, it becomes possible to explain why explicitly identical judgments like 'gold is gold' do not count as analytic from a Kantian standpoint, namely, because objects are not features of themselves: gold is distinguished by its yellowness; it is not distinguishes by its goldness. Likewise, by emphasizing that the conceptual constituents of analytic judgments are related *a priori* to objects, it becomes possible to understand how an analytic judgment can simultaneously be purely conceptual and necessarily true. Because the relation to objects is, as it were, built in to the concepts, it is possible it is possible to generate objective truths while remaining strictly at the level of conceptual analysis.

In Chapter Five, I turn to Husserl. I begin by outlining Husserl's particular formulation of the analytic-synthetic distinction. I explain that for Husserl, a synthetic a priori law is a law that holds by virtue of the "specific nature" of some particular kind of object or phenomenon, and that an analytic law, conversely, is a law that holds of objects just insofar as they are objects. I then spell out the different strata on which analytic law can be articulated. Proceeding from the simplest unit of categorial formation, the object, I continue upward in complexity to the whole, the aggregate, and ultimately the manifold. In the second part of the chapter, I shift focus to the domain of propositions. I show that for Husserl, analytic law extends not just over the object as such, but over the proposition as such, and indeed, that these two areas of analytic law are effectively symmetrical. In the last section, I ask whether Husserl has some way of explaining the possibility of materially substantial analytic judgments like 'bachelors are unmarried men'. I show that whereas Husserl thinks that such propositions can be explained on the basis of linguistic meaning, any such explanation runs into insuperable difficulties. I conclude by noting that whereas Kant's notion of analyticity bears a perfectly straightforward relationship to the idea of conceptual *analysis*, this no longer seems to be the case with Husserl. I suggest that what is needed in order to resolve this apparent tension is just to adopt a broader, non-decompositional understanding of conceptual analysis.

In Chapter Six, I take up the relationship between Kant and Husserl on analyticity more directly. I begin by taking up the disparate, and generally quite negative remarks on Kant's notion of analyticity that turn up in Husserl's published and unpublished writings. I suggest that Husserl's critique of Kant comes down, effectively, to the charge that Kant fails to grasp the ontological significance of analytic judgment. In light of the results of

the first four chapters, I suggest that Husserl is incorrect on this score. Indeed, I suggest that Kant is actually much closer to Husserl on the subject of analyticity than the latter suspects: both think that an analytic judgment is a judgment that articulates our a priori knowledge of objects. The real difference between them, I suggest, concerns the kinds of judgments that succeed in articulating our a priori knowledge of objects, thus the kinds of judgments that rise to the level of analyticity: whereas Kant denies that purely formal logical judgments are properly speaking analytic, because he thinks that such judgments could turn out to be false for some objects, Husserl insists that formal logic is indeed analytic. From Husserl's perspective, there is no scenario in which a valid formal-logical law could turn out to be false. In what remains of Chapter Six, I explore some of the ramifications of Husserl's departure from Kant on this score. Most importantly, I show that this allows Husserl to move past the comparatively restrictive Kantian picture of analyticity, according to which analyticity is a property of a particular subject-predicate judgments exclusively, and to reconceive analyticity as a relation—a relation that can obtain between the terms in a proposition, between the propositions in argument, or between the propositions that jointly constitute a deductive science. Having shown that formal logic is analytic in a primary sense, Husserl can argue that a system of judgments that is related *by virtue of* formal logical laws is analytic in a secondary sense.

Chapter 1

Analytic Judgment and the Critical Project

The main objective of this chapter is to clarify the relationship between analytic judgment and synthetic judgment, and in so doing, to clarify the position of analytic judgment in the first *Critique* as a whole. Against the tendency to see analytic judgment as a kind of trivial counterpart to synthetic judgment, I want to show that analytic judgment is a *condition of possibility* for the latter, and hence, that a coherent account of analytic judgment is crucial to the theoretical integrity of the first *Critique.*

I begin the present chapter by considering a trio of pre-Kantian philosophers: Locke, Leibniz, and Hume. This survey has two basic objectives. First, seizing on the fact that all three philosophers articulate *something like* the analytic-synthetic distinction—in the sense that all three philosophers distinguish between judgments that are true independently of contingent matters of fact and judgments that are true by virtue of contingent matters of fact—I explore the way in which the 'analytic' half of their respective distinctions functions within a broader horizon of philosophical, and more precisely, epistemological, concerns. What I find is that with partial exception of Locke, none of Kant's predecessors assign to (what I will simply call) necessary judgments a central epistemological role. In many cases, necessary judgments are brought to forward for contrastive purposes, to highlight the properties of genuinely informative judgments; elsewhere they are cast as a kind of archetype, or model for the latter. Only in Kant, however, do necessary judgments become explicitly preconditional for synthetic judgments. I argue that this fact relates ultimately to Kant's introduction of a second form of necessary judgment, namely, synthetic a priori judgment.

1. Pre-Kantian Anticipations

Early in the first *Critique*, Kant makes a strong claim regarding the originality of the distinction that he draws in that work between analytic and synthetic judgment. While confident that no previous thinker has yet formulated the problem of synthetic a priori judgment, he adds that this may also apply to the analytic-synthetic distinction (B19). Writing a few years later, Kant moderates this claim slightly and notes that a "hint" of the analytic-synthetic distinction can be found in Locke's *Essays Concerning Human Understanding*, namely, in Locke's discussion of the various ways in which ideas can be related to one another (4:270). Still later, Kant will quietly acknowledge other hints, from other sources; and commentators on Kant will produce passages from other writers which seem to anticipate Kant's distinction, and of which Kant was likely aware. For the moment, let's look at the passage from Locke to which Kant directs our attention.

Locke

According to Locke, our ideas can be related in four distinct ways, resulting in four distinct types of judgment. The first, most basic form of relation is self-relation. Locke thinks that this relation is guaranteed for any idea whatsoever: "there can be no idea in the mind which [the mind] does not...perceive to be what it is". Concomitant on this awareness of self-identity is an awareness of difference. We are immediately aware that a given idea is different from all other ideas.[2] The next, still very basic form of relation is that of co-existence. Given a set of simple ideas inhering together in a complex idea, we can ask what other simple idea might 'co-exist' alongside the first group. Thus, given the simple ideas of heat, luminosity, and upward movement, which together form the

[2] Locke, *An Essay Concerning Human Understanding*, p. 544.

complex idea of fire, we can ask whether an additional simple idea, such as redness, might not co-exist with our initial set of ideas.

For Kant, these first two forms of judgment point the way toward the analytic-synthetic distinction. Perception of identity and difference (or "identity and contradiction", in Kant's paraphrase)[3] captures the basic essence of analytic judgment; and perception of the co-existence of simple ideas (or the "existence of representations in a subject") captures the essence of synthetic judgment. Where Locke's account comes up short (beyond its "obscurity", and "indefinite" character) is just in its low estimation of our epistemic access to facts about co-existence. According to Kant, Locke fails to acknowledge that the co-existence of certain distinct ideas can be grasped with necessity. In Kant's lexicon, this means that Locke has failed to acknowledge the possibility of synthetic a priori judgment.

It is possible, of course, that Kant was aware of a seemingly much stronger precedent for analytic judgment from Locke's *Essay*. Just following the passages cited by Kant, Locke gives over a whole chapter to a consideration of 'trifling propositions', a category that seems to capture many of the properties of analytic judgment. For Locke, a proposition is 'trifling' if it spells out what is implied by its constituent ideas. Thus, the proposition 'all gold is fusible' is trifling, because it spells out what is "comprehended" in the idea of gold; it does not add anything to the understanding that we must have in order to understand the word 'gold' in the first place.[4] Still less informative are identical propositions, the conditions of possibility for which we have just seen, and which include

[3] Lewis White Beck calls this re-wording a "significant slip" on Kant's part ("Analytic and Synthetic Judgments Before Kant", p. 82).
[4] Locke, *An Essay Concerning Human Understanding*, p. 612.

propositions like 'lead is lead'. Finally, Locke calls 'trifling' any proposition that is drawn from a freely stipulated definition. Such propositions will of course be true, provided that they do nothing but articulate a given definition; but they will not be instructive, since the definition will have arisen just from "men's fancies".[5]

It is easy to see why the second and third of these propositional types qualify as 'trifling'. Even on the most generous interpretation of 'lead is lead', which would see in this proposition a claim concerning the property of self-identity exhibited by the real substance lead, the proposition nevertheless fails to predicate anything distinctive of lead. As far we know, everything has the property of self-identity. Propositions from stipulated definitions are even more transparently trivial. They are true only to the extent that they have forfeited empirical significance. The third propositional type, exemplified by 'gold is fusible', might give us pause however. After all, this proposition *does* seem to predicate something distinctive of gold. In order to see why 'gold is fusible' is nonetheless trifling, according to Locke, it is necessary to look briefly at the difference between nominal and real essence.

Knowledge of general substances begins, according to Locke, from the observed conjunction of certain sets of properties. Having experienced various objects that exhibit the properties of fusibility, yellowness, and malleability, we construct a complex idea in which the simple ideas of those properties are combined and which we associate with the word 'gold'. Our decision, in this case, may be very well motivated: it may be that many objects consistently exhibited the cluster of properties in question. For Locke, however, it is invariably quite shallow, ontologically speaking. We cannot say that the complex idea

[5] Locke, *An Essay Concerning Human Understanding*, pp. 615-6.

gold corresponds to a substance that is individuated independently of our taxonomical decisions.[6] Nor, importantly, can we perceive a "necessary connexion" between the ideas that have gone into the complex idea of gold. We can say only that they are frequently conjoined in experience.[7]

In Locke's terms, this means that the proposition 'gold is fusible' targets the nominal essence rather than the real essence of gold. It does not draw out an essential feature of some robustly mind-independent substance; it recapitulates the collective decision to associate a particular set of properties with a particular substance. No doubt this decision resulted from a significant discovery of sorts: the discovery that fusibility, yellowness, and malleability are routinely to be found conjoined together. Given that the discovery has been made, however, and firmly encoded in our linguistic practices, it cannot be harvested as a source of renewed insight. According to Locke, real "improvement of knowledge" occurs when we hold our established idea up to the light of experience and record the agreement or disagreement between our complex idea and some additional predicate not already "contained" in that idea.[8]

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[6] In at least one passage, Locke expresses doubt that nature is divided into discrete species in the first place (p. 418). Elsewhere, he speculates that species are arrayed on a kind of continuum, in which case the distinction between species would be vague (pp. 446-7).

[7] *An Essay Concerning Human Understanding*, p. 644. Drawing from a draft of Locke's *Essay*, Joelle Proust remarks that the predicates within a complex idea are conjoined by means of the "simple coordinative "and" [rather than] the derivative "therefore"". To transgress this logical boundary, Proust explains, would be to pass "from the contingent enumeration of properties to the necessary knowledge of the properties of the substance" in question, and thus to lay claim to a kind of insight that according to Locke is simply unavailable—a knowledge of real rather than nominal essence (*Questions of Form*, p. 8).

[8] Supposing that this agreement is sufficiently well attested, it is plausible that the new predicate may be incorporated into the complex idea itself, in which case the proposition *gold is x* may come to seem trifling. Though Locke does not say so explicitly, the border between the trifling and the non-trifling appears to be fluid.

Before moving on, it is important to note an exception to Locke's strictures against necessary predication. Whereas our ideas of substance can be conjoined with a merely inductive certainly, Locke notes that distinct ideas *can* be conjoined with necessity in geometry and in mathematics more generally. The idea of a triangle does not "contain" the many precise theorems that can be brought forward concerning triangles, but these theorems nevertheless enjoy a necessary connection with the idea.[9] Locke attributes the possibility of necessary predication in such cases to the origin of the ideas involved. Whereas our ideas of substance are derived from contingent sensible experience, mathematical ideas are products of the mind. This means when I correctly predicate some property of a mathematical idea, the resulting proposition is invulnerable to empirical falsification. The predicate cannot cease to agree with the subject.[10]

Leibniz

The next important hint of the analytic-synthetic distinction emerges with Locke's contemporary Leibniz. Writing in his *New Essays on Human Understanding*, a book-length critique of Locke's similarly titled work, Leibniz argues that Locke fails to distinguish adequately between "truths of reason" and "truths of fact".[11] In particular, Locke fails to acknowledge their distinct origins: he maintains that all ideas can be traced ultimately to experience, and that the difference between a necessary and a factual proposition relates merely to the way in which our empirically acquired ideas are

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[9] Locke, *An Essay Concerning Human Understanding*, p. 614.
[10] According to Louis White Beck, Locke's threefold distinction between propositions that are trifling, propositions that are informative but contingent, and propositions that are informative and necessary, suggests that he has all but formulated Kant's own threefold distinction between analytic, synthetic a posteriori, and synthetic a priori judgments. ("Analytic and Synthetic Judgments Before Kant", p. 82).
[11] Leibniz, *New Essays on Human Understanding*, p. 77.

arranged within a given proposition. For Leibniz, on the other hand, matters are reversed: the way in which the concepts in any true proposition are combined is ultimately the same; what distinguishes a necessary proposition from a contingent, factual proposition is the origin of their constituent ideas.

Leibniz's first category, truths of reason, includes mathematical, geometrical, and logical truths, as well as what we might call 'substitution instances' of these truths.[12] Thus, the logical proposition 'A is A' is a truth of reason; and its substitution instance, 'an equilateral triangle is an equilateral triangle', is also a truth of reason.[13] The hallmark of these propositions, for Leibniz, is their absolute necessity. Such propositions cannot fail to be true; their negations are formally contradictory.[14] In the case of the propositions cited above, this is easy to see: 'A is not A' can immediately be recognized as contradictory. Its subject and predicate are explicitly non-identical. In the case of other truths of reason, this may be less easy to see. Take, for example, the proposition 'man is a rational animal'. According to Leibniz, this is a truth of reason. However, when we consider its negation, 'man is not a rational animal', we are not immediately conscious of

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[12] Leibniz, *Theodicy*, p. 74.
[13] Leibniz, *New Essays on Human Understanding*, pp. 361-2.
[14] Leibniz, *Discourse on Metaphysics* p. 13 (§13). Leibniz also says that the contrary of truths of reason are 'impossible' (e.g. *Monadology*. p. 236 (§33)). Impossibility, I want to suggest, is extensionally, if not intensionally equivalent with contradiction. In the first place, Leibniz actually uses these notions synonymously (e.g. *Theodicy*, pp. 235, 267 (§173, §224)). Second, their extensional equivalence is compatible with Leibniz's central theological convictions. Briefly, possibility for Leibniz means possibility relative to God. Something is possible if it is within God's power to bring it about. If God were capable of bringing about contradictions (say, if he could create a world in which $2 + 2 = 4$ and $2 + 2 \neq 4$) then contradiction and impossibility would not coincide. But Leibniz does not grant God the prerogative to bring about contradictory states of affairs, or to institute contradictory laws. This would be incompatible with God's perfection, in the sense that God will have instituted a less than fully harmonious set of laws. What is impossible for God, therefore, is just what is contradictory.

contradiction. Indeed, we might even think that the negation is true. Illumination in such a situation comes from analysis. When the subject concept *man* is subjected to analysis, we recognize that it "contains" the predicate concepts—and indeed, contains those concepts as a matter of necessity. This means that the proposition itself is a substitution instance of the logical law 'A(BC) is BC'.[15]

Since precisely this issue will come to be quite important when we turn to Kant, it is worth pausing to note that the illumination the Leibniz describes here, wherein I become aware that my concept *man* contains predicates of which I was not immediately aware, is effectively impossible on Locke's conception of things. For Locke, we could not reflect meaningfully on the idea of *man* if we did not already know that it was equivalent *rational animal*. A person inclined to doubt the proposition 'man is a rational animal' would simply not count as possessing the idea *man*. For Leibniz, on the other hand, it is possible to possess an idea without being conscious of everything that is entailed by that idea. Indeed, since Leibniz maintains that all of our ideas are innate, he is obliged to allow for the opacity of some ideas, at risk of committing himself to the counter-intuitive claim that everyone knows everything at all times. Leibniz reconciles the doctrine of innatism with the obviously imperfect reality of human knowledge by arguing, in Platonic spirit, that our understanding is in many cases simply potential.[16] While I implicitly know that man is rational because I fully possess the concept *man*, this knowledge is not necessarily actualized. When I come to formulate the proposition 'man is rational', I can thus truly be said to have *learned* something. Relative to my particular

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[15] Leibniz, *Monadology*, pp. 236-7 (§33-34); "On Universal Synthesis and Analysis, or the Art of Discovery and Judgment", pp. 230-231; see also: Beck, "Analytic and Synthetic Judgments before Kant", pp. 85-86.
[16] Leibniz, *New Essays On Human Understanding*, pp. 85, 86-7.

epistemic situation, 'man is rational' counts as genuinely informative. To now retake the thread of our discussion, and see why 'man is a rational animal' should count as *absolutely* necessary, we should look to the theological underpinnings of Leibniz's theory.

As we have just seen, it is possible to justify the truth of a given proposition with reference solely to its constituent concepts and the relations between them. According to Leibniz, however, the "ultimate foundation" of all truths is God.[17] True propositions are reflections of God's creative potency. What is crucial is just that not all true propositions are related to God in exactly the same way. Truths of reason, Leibniz informs us, belong to God's *understanding*. They represent a kind of emanation of the divine intellect. This means that they are maximally perfect expressions of God's essence. But it also means, paradoxically, that God has no choice as regards their form or their institution. God could not have made the world such that A is not A. Nor, indeed, could God make a *different* world such that A is not A. Along with the principles of geometry and metaphysics, the logical principle of self-identity belongs to the architecture of every possible world. It is in this sense that such truths are *absolutely* necessary.

Leibniz's second category of truths partially reverses the determinations of the first category. In the first place, truths of fact are contingent. The negation of a truth of fact does not imply a contradiction.[18] Our mode of access to such truths is likewise distinct. They do not become accessible by means of analysis. Rather they become

[17] Leibniz*, New Essays On Human Understanding*, p. 447.
[18] Leibniz*, Discourse on Metaphysics, p. 13 (*§13), *Monadology*, p. 236 (§33).

accessible through external perception and through public testimony.[19] In order to know whether the proposition 'the cat is on the mat' is true, I check to see whether the phenomena before me confirm this proposition; and in order to know whether the proposition 'Caesar conquered Rome' is true, I consult the relevant historical literature. What is significant for us is Leibniz's account of what actually *makes* such propositions true. For Leibniz, truths of fact are true in the same way as truths of reason: the subject concept in such a proposition "contains" the predicate concept. The concept of my cat contains the idea of being on the mat at this particular time, and the concept of Caesar contains the idea of conquering Rome.[20] These truths, moreover, can ultimately be credited to God. God's creation of the world, Leibniz explains, involved the creation of "complete concepts" of my cat, of Caesar, and of everything else—concepts containing every true proposition that can be advanced concerning those individuals.

But if the concept of Caesar actually contains the idea of conquering Rome, why can't we access this fact through analysis? The answer, very simply, is that the analysis required would be infinite: while we can derive the predicate *rational* from *man* in a finite number of steps, it would be necessary to run through a virtually unending series of predicates in order to derive the idea of conquering Rome from the concepts of Caesar—predicates representing the infinite set of facts and events that were instrumental in bringing about this result. A second, more important question concerns Leibniz's identification of truths of fact as contingent. Given that the concept *Caesar* always already contains the idea of conquering Rome, it would seem that the proposition 'Caesar

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[19] Leibniz*, New Essays On Human Understanding*, p. 75; "On Universal Synthesis and Analysis, or the Art of Discovery and Judgment", p. 232.
[20] Leibniz*, Discourse on Metaphysics, p. 13* (§13).

is the conqueror of Rome' is at all times necessary, even prior to the event itself.[21] To this concern, Leibniz responds with an additional theological nuance. In short, God did not have to create, or actualize any given individual concept. The actualization of individual concepts is an expression of the God's free will rather than God's understanding.[22] Whereas God could not have chosen to create a world in which A is not A, God could have chosen to create a world in which the concept *Caesar* is not actualized.[23]

Hume

A final precedent for Kant's analytic-synthetic distinction comes by way of Hume, and the distinction that Hume draws between propositions based on the relations of ideas and propositions based on matters of fact. Like Leibniz, Hume draws this distinction along

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[21] According to Benson Mates, the notion that the predicates like *conqueror of Rome* apply to individual concepts in a temporally unspecified fashion is consistent with Leibniz's own usage. Mates notes that Leibniz "says several times that King—not King between 336 and 323 BC—is included in the complete individual concept of Alexander". This has the effect of preserving the generality of the predicates belonging to individual concepts. Instead of *conqueror of Rome in 49 BC*, we have simply *conqueror of Rome*. As Mates notes, however, this also suggests a different model of containment than the one that applies to truths of reason. While the predicate *rational* is contained in the idea *man* at all times, the predicate *conqueror of Rome* arguably does not belong to Caesar in 50BC. The solution, Mates suggests, is to think of a complete individual concept as a "temporally ordered series of states". Then it is indeed the case that *conqueror of Rome* belongs to the complete individual concept of Caesar, because it belongs to at least one of the 't-states' that comprise this concept. (*The Philosophy of Leibniz: Metaphysics and Language*, pp. 88-89; cf. A.W. Collins "The Unity of Leibniz's Thought on Contingency, Possibility, and Freedom", p. 148).

[22] Leibniz*, Discourse on Metaphysics, p. 13* (§13), *Monadology* pp. 242-3 (§46).

[23] According to Jack Davidson, however, it is not meaningful to imagine a world in which the concept *Caesar* is actualized, but in which Caesar does not conquer Rome. God's creative volition is not exercised at the level of the particular actions of particular individuals; it is exercised at the level of entire worlds. What God decides is not whether Caesar will conquer Rome, but whether the concept *Caesar*, which includes the idea of conquering Rome, will be actualized—and if so, which concepts, from the set of concepts compossible with *Caesar*, will be actualized alongside it ("Untying the Knot: Leibniz on God's Knowledge of Future Contingents", p. 103).

what we can call regional boundaries, explaining that the propositions of a geometry, algebra, and arithmetic can be understood as expressing relations of ideas, while the propositions of natural science, and many of the propositions of everyday life, can be understood as expressing matters of fact.[24] But Hume, again in concert with his Prussian predecessor, maintains that this regional distinction can be expressed in formal terms. For Leibniz, this formal distinction relates to the length of the analytic process necessary to derive the predicate idea from the subject. For Hume, on the other hand, the distinction between relations of ideas and matters of fact concerns the way in which propositions are justified. In the case of the first category, relations of ideas, Hume thinks that it is possible to construct an unbroken argumentative sequence leading from the subject idea to the predicate idea. Thus, given the proposition 'the square of the hypotenuse is equal to the squares of the two sides', I can supply the intermediary ideas that will lead, by a series of clearly grasped argumentative steps, from the subject idea to the predicate idea. In matter of fact propositions, on the other hand, there is a gap in my reasoning. In trying to demonstrate that 'sunlight causes warming', I am forced to appeal to an idea which I cannot justify—the idea that the relationship between sunlight and warming which I have witnessed up until now will persist into the future. Even if I tried to remedy this problem by reformulating my statement in terms of the past only (sunlight *caused* warming), I

[24] *An Enquiry Concerning Human Understanding*, p. 18. I will for the most part restrict my survey of Hume to the *Enquiry*, on the grounds that it was from the *Enquiry* that Kant's understanding of Hume was drawn. This will not have major interpretive consequences, given the generally high level of agreement between the *Treatise* and the *Enquiry*. One minor consequence is reflected above, in the inclusion of geometry in the list of sciences based on the relations of ideas. In the *Treatise*, Hume is not convinced that geometry belongs on this list, owing to its dependence on imprecise, external perception as a source of its central ideas: "As the ultimate standard of these things is derived from nothing but the senses and imagination, 'tis absurd to talk of any perfection beyond what these faculties can judge of" (*Treatise of Human Nature*, p. 51).

would run up against another argumentative gap in the idea of causation. According to Hume, causation fails to meet the basic criterion of validity for ideas: we cannot point to an impression from which the idea of causation is plausibly derived; we simply do not perceive any "power or necessary connection" that conjoins together events; we witness only the events themselves.[25]

If we are nevertheless invested in the truth of propositions like 'sunlight causes warming', it is not therefore because we can avail ourselves of some consistent, stepwise argument from subject to predicate. Rather, Hume explains that our investment in such propositions is a function of custom. We have experienced sunlight and warmth as conjoined in the past, and have therefore formed a custom, or habit, of associating one with the other. We can always *conceive* of a situation in which sunlight is unaccompanied by warmth. Since the idea of sunlight and the idea of warmth arise from different sets of impressions, they are essentially distinct, and can be dissociated from one another without contradiction. Hume's point is that we are nevertheless compelled to conjoin together ideas whose objects are frequently encountered together in experience. If we do not actually *know* that they will always be conjoined, we are persuaded by the course of events to *believe* that this will be the case.

Relations of ideas, meanwhile, cannot be denied without contradiction. The contrary of a mathematical or geometrical truth is not merely false, but contradictory. In the *Prolegomena*, Kant seizes on one part of this claim, arguing that by making mathematical propositions cognizable through the principle of contradiction, Hume is effectively claiming analytic status for mathematics and thus missing its real synthetic a

[25] Hume, *An Enquiry Concerning Human Understanding*, p. 46.

priori character (4:272). According to several commentators, however, this is to mistake the meaning the Hume attaches to the idea of contradiction. In particular, it is to project onto the *Enquiry* a formal notion of contradiction that is foreign to Hume.[26] We will have occasion in the next chapter to assess the implication here concerning Kant, namely, that Kant understands contradiction in formal terms and counts a proposition as analytic when its contrary is formally contradictory. For the time being, it is easy to find support for the view that Hume's understanding of contradiction is essentially non-formal—indeed, that it is a matter of the *psychological* incompatibility of ideas, rather than the non-identity of concepts.[27] Thus, because we cannot "distinctly conceive" the equality of $\sqrt[3]{64}$ and 10/2, Hume claims that the proposition expressing this equality is contradictory.[28] Conversely, the proposition 'the sun will not rise tomorrow' qualifies as *non*-contradictory for Hume, because the idea of the sun can be coherently thought together with the idea of its not rising tomorrow: "if something is intelligible and can be distinctly conceived", Hume explains, "it implies no contradiction".[29] Both propositions, $\sqrt[3]{64} = 10/2$ and 'the sun will not rise tomorrow', are false.[30] But only the first resonates for us as contradictory, and does so because of the nature of the ideas that it contains, and the way in which we are constrained to understand those ideas.

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[26] R.F. Atkinson, "Hume on Mathematics", pp. 128-129; Donald Gotterbarn, "Kant, Hume, and Analyticity", pp. 277-278.
[27] As Louis White Beck puts it, by contradiction Hume does not have in mind "an assertion like “A is not A.” He means also “A is not B” where an A that is not a B is “inconceivable” or “unimaginable" ("Analytic and Synthetic Judgments Before Kant", p. 83).
[28] *An Enquiry Concerning Human Understanding*, p. 119.
[29] *An Enquiry Concerning Human Understanding*, p. 18.
[30] As Hume remarks in the *Treatise*, "truth or falsehood consists in an agreement or disagreement either to the real relations of ideas, or to real existence and matters of fact" (p. 458).

Undoubtedly, still more ancestors of Kant's analytic-synthetic distinction could be turned up in the pre-Kantian literature. As early as 1793, Kant's correspondent J.B. Beck pointed out to Kant that his distinction was foreshadowed in the work of Christian August Crusius.[31] And Kant himself acknowledged both Crusius and the logician Johann Peter Reusch in a polemical work from the same period (8:245-6). More recently, Lewis White Beck has pointed to intimations of the analytic-synthetic distinction in Kant's near-contemporary Wolff.[32] For our purposes, what is important is less an exhaustive catalogue of the philosophers that influenced Kant, than a survey of the different ways in which necessary judgment was conceived prior to Kant—both as regards the place of such judgments within a broader, epistemological context, and the internal issues that impinge on the idea of necessary judgment.

Necessary Judgment in Epistemological Context

Having outlined the various theories of necessary judgment to be found in Kant's predecessors, we are in a position to look more closely at the question of how those theories stand within a broader epistemological context. To begin, I think that we can see the ideas of necessary judgment that originate with Locke and Hume as arising from a certain kind of tension: the tension between the narrow, empiricist premises that both thinkers take as a point of departure, and the breadth of the epistemological accomplishment for which both thinkers hope to account.

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[31] "zu meinen Verwundern habe ich...die Unterscheidung der analytischen und synthetischen Urteilen weit deutlicher darin gefunden als in der von Ihnen zitierten Stelle des Locke" (11:444-45)

[32] Lewis White Beck, "Analytic and Synthetic Judgments Before Kant", pp. 90-91.

Locke, for his part, maintains that we have direct access just to simple properties such as color. This, in turn, creates a challenge when it comes to explaining our manifest ability to talk about and reflect upon general substances in the world. Locke, as we saw, meets this challenge by appealing to social convention. When I think about, or discuss gold, according to Locke, what I invoke is not a particular instance of a gold, but a complex idea, formed collectively and inductively on the basis of similarities encountered in nature. This distinctively Lockean solution supplies the basic conditions for a certain kind of necessary truth. Because complex ideas are, precisely, complex, it becomes possible to form true propositions just on the basis of those ideas: we need only predicate a part of the complex idea to the whole idea.[33] And because complex ideas are not anchored to any particular empirical objects, or set of objects, they are—at least as far as their inaugural properties are concerned—invulnerable to refinement in the light of experience. Propositions that we form concerning those ideas can therefore be grasped with necessity.

For Hume, there exists a similar gap between the representational content to which we have genuine access and the representational content that is reflected in our standard ways of thinking and talking about the world. While we take ourselves to have insight into the relations between different kinds of objects, we have genuine perceptual access just to different kinds of objects. This creates counter-intuitive consequences in the realm of causality: for example, we cannot *know* that submersion in water causes

[33] This possibility does not exist for Hume, given his understanding of how reference to general substances works. The proposition *gold is fusible*, on the Humean picture, does not predicate part of a complex idea of the whole idea; rather, it predicates one aspect of a certain, imagistically conceived particular of the whole particular. Thus, the judgment is not true in a purely formal sense, by virtue of containment relation between subject and predicate, but by virtue of the manifest properties of the particular to which 'gold' refers.

drowning. This might be an epistemic limitation that we could live with. We could be content to simply wager on the reliability of the above-cited rule, and others like it. But are less likely to rest content with this limitation in the realm of mathematics and geometry. We do not think that 2 + 2 = 4 is just a well-attested rule of thumb; we think that this relation is necessary and eternal. It behooves Hume, therefore, to try to find some way of reconciling his basic premises with our modal intuitions.

Significantly, Hume does not adopt a Lockean solution to this problem: he does not argue that our mathematical ideas originate with the mind, and are therefore immune to empirical disqualification. On the contrary, he is committed to the view that mathematical ideas, like all ideas, represent 'images' of externally encountered objects.[34] Given that the required distinction cannot be drawn at the level of origin, therefore, Hume attempts a different gambit. He argues that our empirically derived ideas can be related in two fundamentally different ways: externally and internally. Thus, the ideas *water* and *drowning* are externally related; for all I can tell, there is nothing internal to these ideas that would explain their apparent causal conjunction. On the other hand, the ideas of 2 + 2 and 4 are related internally. I simply do not grasp the idea of 2 + 2 if I do not grasp its equality with 4.[35] It is these internal relations that form the basis of the propositions that Hume groups under the heading of 'relations of ideas'. Because it bears just on the

[34] Henry Allison argues that Hume's commitment to this principle is not sustainable; and that it breaks down specifically around large numbers, of which we do not plausibly have an adequate, imagistic conception. The challenge of accounting for large numbers, according to Allison, obliges Hume to adopt an essentially Kantian account of number. Instead of seeing the ideas of large numbers as copies of externally encountered objects, the Hume of the *Treatise* effectively understands large number ideas as "rules" for generating the number in question (*Custom and Reason in Hume*, pp. 34-35).
[35] Daniel Gotterbarn, "Kant, Hume, and Analyticity", p. 275.

essential properties of its constituent ideas, the proposition 2 + 2 = 4 can be denied only on pain of incoherence.

Differences notwithstanding, then, there is a sense in which Locke's trifling propositions and Hume's relations of ideas reflect compensatory mechanisms. Since basic, empiricist premises do not account of our understanding of general substances or mathematical relations, it is necessary to invoke a kind a second-order principle that does explain the possibility of such understanding. In Locke's case, this second-order principle is the complex idea; in Hume's case, it is the internal relation between ideas. The 'trifling proposition' and the 'relation of ideas' then become possible as expressions of these compensatory mechanisms. A somewhat different perspective on both proposition-types emerges when we consider the rhetorical role played by each. In that light, it becomes possible to see both as motivating a crucial epistemological thesis.

Trifling propositions, for their part, emerge in the context of Locke's campaign against scholastic philosophy: specifically, the scholastic tendency to inflate the significance of self-evident propositions like 'gold is fusible' and 'lead is lead'. For Locke, our grasp of propositions like 'gold is fusible' does not reflect insight into the real essences; it reflects mere verbal consciousness, that is, an awareness of how particular words are understood. Likewise, our grasp of propositions like 'lead is lead' does not reflect an antecedent grasp of the general principle of identity; it expresses our grasp of the self-identity of a particular idea.[36] This deflationary project corresponds, in turn, to a positive vision for epistemological progress. Rather than simply analyzing our

[36] See Margaret Wilson's informative essay "Locke and Leibniz on "First Truths"" for discussion of the polemical context surrounding Locke's discussion of trifling propositions.

antecedently held ideas, Locke thinks, we should refer those ideas to experience, and assess their agreement and disagreement with other ideas. Locke's discussion of trifling propositions works to motivate this vision, precisely by indicating what a non-informative proposition looks like.

Writing a half-century later, Hume is concerned to underscore the limitations in the epistemological vision endorsed by Locke. What he wants to show is that in empirical matters, which occupy the lion's share of our attention, the agreement or disagreement between ideas can be grasped with only inductive certainty. Relations of ideas then become a way of underscoring this fixed limit to possible insight. As Norman Kemp Smith remarks, relations of ideas offer a "standard in light of which we are able to detect [the] complete absence [of rational necessity] in all other fields".[37]

In the case of our third pre-Kantian figure, Leibniz, something very similar obtains. A certain kind of non-empirical, necessary truth becomes a lens through which to view empirical truth. Where Leibniz goes beyond Hume is in seeing the former as a *model* for empirical truth, and not simply as a way of underscoring its inadequacy. Thus, even while acknowledging that our access to truths of fact comes via external perception, Leibniz insists on analyzing these propositions in terms of the containment model of truth—a model which sits comfortably in the context of mathematical, logical, and definitional truths, but which gives rise to difficult problems in the context of truths of fact. Leibniz's reasoning in this regard is essentially theological in nature. Concerned to preserve an understanding of God as perfectly omniscient, Leibniz supposes that God has available for inspection the complete concepts of every possible individual, concepts

[37] Norman Kemp Smith, *The Philosophy of David Hume*, p. 69.

containing all of the eventualities that will, over the course of time, befall those individuals. This gambit makes it difficult for Leibniz to account for individual free will (since every action that I will ever perform is already set out in my 'complete concept'), and seems to threaten the idea of God as omnibenevolent (since God will have actualised certain concepts in full knowledge of the evil acts that would ensue). But more importantly, this gambit allows Leibniz to claim that truths of fact are true in the same way as truths of reason: by virtue of an intra-propositional relation of conceptual containment.

So far, then, we have seen three ways in which the idea of necessary judgment circulates in the texts of Kant's predecessors. First, the idea of necessary judgment emerges in both the *Essay* and the *Enquiry* as a way of accounting for an epistemic accomplishment that cannot readily be explained from empiricist premises: our knowledge of general substances, for Locke, and our knowledge of mathematics for Hume. Second, necessary judgment plays a rhetorical role, either as a way of exposing the triviality of some rival epistemic endeavor, or as way of qualifying the epistemic value of empirical truths. Third, necessary judgment serves as a model for truth in general, as we have just seen in Leibniz. Before concluding, it is worth returning briefly to Locke, and considering a fourth and final role that the idea of necessary judgment plays in his theory of knowledge.

For Locke, as I have tried to show, there is a sense in which lexically necessary propositions like 'gold is fusible' are doubly trifling. In the first place, such propositions simply spell out what is contained in a given complex idea. Second, we have no reason to think that this complex idea mirrors the real essence of a real substance, meaning a

substance with a unique place in the real taxonomy of nature. For all we know, the idea of gold is a purely human innovation, an idea that the proposition 'gold is fusible' simply articulates. What I want to claim, however, is that this second degree of triviality corresponds to a deep significance. Precisely because the idea of gold is a contingent, historically specific, human construction, my grasp of the idea *gold* arguably presupposes a disposition to assent to the proposition 'gold is fusible'. I need not *actually* assent to this proposition, or even make it the object of conscious thematization. The point is simply that on the Lockean picture, reflection on gold would be empty, or solipsistic, if it were not mediated by the understanding that gold is fusible. Gold is not just something lying around in my environment of which I could form my own idiosyncratic conception. It is individuated by a socially constituted idea.[38]

Something similar applies, I think, in the case of mathematics. Indeed, Locke himself makes it clear that reference to mathematical objects proceeds *entirely* through mathematical ideas.[39] We do not first observe triangular objects in experience and then form the general idea *triangle*; we form the idea in question, and then identify instances of that idea in experience. This being so, it is plausible to think that reference to, and reflection upon those objects presupposes a disposition to assent to certain idea-constituting statements. We need not reflect on the Pythagorean theorem every time we wish to refer to triangles (as we have already seen, there is reason to think that for Locke,

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[38] Locke gestures toward the point I have been making here in various places. He says that identical propositions show us "nothing but what we must certainly know before, whether such a proposition be either made by, or proposed to us" (p. 609). Lexical propositions, meanwhile, "teach nothing but what every one who is capable of discourse knows without being told"
(p. 611); they "contain no more than one of the terms does, and which a man was *supposed to know before*" (p. 614).

[39] Locke, *An Essay Concerning Human Understanding*, p. 565.

such theorems are not actually contained in the idea *triangle*); but since the reference of the word 'triangle' is fixed by an idea, rather than some archetypal object, or set of objects, the possibility of mathematical discourse seems to presuppose that this idea has a fixed, minimal content, one that the participants in mathematical discourse are necessarily disposed to affirm.

Perhaps, then, we could distinguish a fourth role for the idea of necessary judgment alongside the three that we have already identified. In short, such judgments may be seen as expressing the basic conditions of possibility for meaningful thought and discourse concerning particular kinds of complex objects. On this view, if I did not grasp a given idea at the level of its individual constituents, I could not participate in discourse concerning its object. Nor, crucially, could I *learn* anything about that object, since learning would likewise presuppose a grasp of the idea through which reference to the object is established.

Having completed our necessarily hasty survey of Kant's most important predecessors, let's move on at this point to the *Critique of Pure Reason*. By getting a sense, first, of the basic theoretical architecture of this famous work, we can move on to consider the place and role of analytic judgment within it. What we will find is that analytic judgment assumes an epistemological importance for Kant that the roughly equivalent notions in Locke, Leibniz, and Hume do not have for those thinkers. This, in turn, will ultimately prove to be a function of Kant's introduction of a *second* form of necessary judgment—a kind of judgment that does not owe its necessity strictly to the relations between concepts.

2. The *Critique of Pure Reason*

The introduction of this second, non-conceptual form of necessary judgment is not long in coming. Indeed, Kant's point of departure in the first *Critique* is precisely the manifest *actuality* of such judgment. He claims that our actual achievements in mathematics, natural science, and metaphysics bear witness to an ability to grasp necessary relations that are not purely conceptual (B20-21, B40). When I grasp that 7 + 5 = 12, according to Kant, I grasp a relation that is not inherent in the concepts 7 + 5 and 12, but which is nevertheless grasped with necessity. What is in question for Kant are the conditions of possibility for such judgment. He wants to understand how the mind must stand with respect to the world, and how the mind itself must be structured, such that these epistemological accomplishments are possible.

Kant's answer begins with the claim that the mind is structured in terms of two distinct faculties: sensibility and understanding (A15/B29, A50-1/B74-5). Sensibility, on the one hand, is a fundamentally receptive faculty. Through the deliverances of sensibility, which Kant calls intuitions, we acquire a relation to objects outside of ourselves (A19/B33). Understanding, on the other hand, is a spontaneous faculty, one that acts upon the sensibility. It represents our ability to invest intuitions with conceptual content. Thus, it is by virtue of the understanding that the manifold of intuition appears to us as populated with particular *types* of objects, having certain *generic* features. The activities of the understanding, according to Kant, take the form of judgment (A69/B64). In apprehending a dog, for example, I judge that a certain object falls under the empirical concept *dog*. The possibility of actually formulating this judgment in thought or in

language grows out of the more fundamental, judicative structure of perceptual experience.

Of course, this does not yet show how Kant's model of cognition justifies our insight into necessary relations and states of affairs. Plausibly, we have explained how judgments like 'the sky is overcast' are possible: some kind of intuitive content is given to sensibility; this intuitive content is brought under the subject-concept *sky* and the predicate-concept *being-overcast*.[40] What we have not explained is how our judgments can be categorical. It appears we can confidently declare that x is y *at this moment*. But what enables us to declare that x is y *tout court*? In order to see how this next step becomes possible, it is necessary to say more about the structure of both sensibility and understanding.

Sensibility, I have just explained, is fundamentally receptive. It represents our capacity to receive intuitive content. But sensibility, according to Kant, also plays a structuring role. Without dictating the 'matter' of appearance, meaning the specific content that shows up in any given experience, sensibility prescribes the form of appearance, meaning the most basic spatio-temporal determinations of any appearance whatsoever (A20/B34, A22/B36). Objects, according to Kant, do not have spatial determinations intrinsically (A26/B42), nor are they intrinsically embedded in time (A36/B52). Their appearance as spatio-temporally determined reflects the way in which human beings, with our particularly constituted faculty of sensibility, are constrained to experience them. And this kind of structuration does not simply inform our experience of

[40] cf. (17:616-617 [R4636]). In terms of the analysis that Kant presents here, *sky* represents the "logical subject" of the judgment "the sky is overcast". The judgment expresses the fact that "something *x*, which I cognize under the predicates that together comprise the concept of [sky], I also think through the predicate of [being-overcast]".

external objects. According to Kant, all mental representations whatsoever "necessarily stand in relations of time" (A34/B51, cf. A22-23/B37). In reflecting on some idea, for example, my thoughts are necessarily given successively, or simultaneously. In no instance do my various mental representations fail to assume some kind of temporal order.

As for the understanding, it turns out that it too plays a kind of dual role. In the first place, the understanding is responsible for the production and application of empirical concepts, enabling us to experience particular objects in terms of generic types, and thus to formulate judgments such as *this is a dog*. But the understanding also supplies an even more basic precondition for such judgments. According to Kant, it is by virtue of the understanding that we experience the perceptual manifold in terms of discrete individuals in the first place. The understanding 'synthesizes' the perceptual manifold such that it shows up for us in terms of distinct objects, exhibiting distinct sets of predicates (B106, B203, A199/B244).[41] Of course, since none of us have ever been confronted with an undifferentiated array of color and shape, which we then transformed into a manifold of discrete individuals, Kant cannot maintain that this process of subjective synthesis is in any way conscious, or deliberate. Indeed, his thesis is precisely that this synthesis goes on behind the scenes, effectively in advance of actual, conscious

[41] As Henry Allison notes, this point is less than completely perspicuous in the first *Critique.* A particular source of ambiguity is Kant's identification of intuitions as 'singular', language which suggests that intuitions already represent individual objects, even prior to being brought under concepts ("The Originality of Kant's Distinction Between Analytic and Synthetic", pp. 20-21). Charles Parsons makes a similar point with regard to Kant's 'things in themselves'. Since individuation is a function of the understanding and pure sensibility, Parsons notes, it is not clear why we should imagine that the noumenal realm is populated by individual 'things' ("The Transcendental Aesthetic", in *From Kant to Husserl*, p. 40).

experience. If we can nevertheless become aware that such synthesis takes place, it is by virtue of the 'clue' provided by singular judgments, and the manifest possibility thereof.[42] Kant's claim is that we can work backward from this clue, and others like it, to the most elementary forms of subjective synthesis (A69/B94, A79/B104-5). Thus, the possibility of hypothetical judgments, having the form, if x, then y, points the way to another important synthetic function of the understanding. According to Kant, such judgments are possible only to the extent that the understanding represents the sensible manifold as causally ordered (4:300, B163). Likewise, the possibility of making judgments with necessity, of asserting that x is *necessarily* y, presupposes that certain relations within the sensible manifold are represented as necessary. Working backward from the various forms of judgment to their conditions of possibility, Kant secures a list of what he calls categories. Totaling twelve altogether, the categories, or the 'pure concepts of the understanding', encapsulate the essential modes of synthesis to which the understanding subjects the sensible manifold.[43]

For the moment, I cannot go into Kant's arguments for why these extremely basic forms of structuration should be understood as subjective in origin. What is important to emphasize is simply the *kind* of subjective structuration that Kant has in mind. Unlike Hume, Kant is not arguing that we are inclined, as a matter of custom, to understand sensible experience in certain ways. We do not represent the world in terms of distinct, causally related individuals simply because doing so makes reality more tractable. Kant's

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[42] "The functions of the understanding can therefore all be found together if one can exhaustively exhibit the functions of unity in judgments" (A69/B94).

[43] While in a certain practical sense identical, there is nevertheless a conceptual difference between the categories and the pure concepts of the understanding. In short, the categories are the pure concepts of the understanding when considered in relation to intuition.

argument is that our experience actually *presupposes* certain modes of subjective synthesis. If we had not always already run the sensible manifold through the categories, as well as the pure forms of sensibility described in the previous paragraph, then we would not have the experience that we have. Another way to make the same point would be to say that the categories, along with the 'pure intuitions', space and time, are necessary conditions for human experience—and this, finally, provides an indication as to how we are able to produce knowledge that is both informative and necessary. Let's take these conjuncts in turn.

We generate knowledge, according to Kant, when we conjoin to an antecedently held concept some predicate not already contained in that concept (A7/B11). In most cases, this predicate is drawn from empirical intuition. Thus, when I declare that *dogs are playful*, I conjoin to my concept *dog* a predicate drawn from my experience of dogs. Because I have thereby enlarged my initial concept, Kant calls this kind of judgment 'synthetic'. And because this enlargement is defeasible in the light of future experience (I may discover that dogs are not actually playful), Kant calls such judgments 'a posteriori'. In order now to generate synthetic *a priori* judgments, it is clear what is required. We need to enlarge an initial concept in such a way that the resulting judgment is *not* defeasible in the light of future experience.[44] What we have just learned concerning sensibility and understanding indicates how this is possible. Instead of drawing our predicate from empirical intuition, which is to say, from the content that is given to sensibility, we can draw our predicate from the necessary structure of sensibility itself—

[44] Kant makes it clear that apriority does not mean temporal priority vis-à-vis experience (B1). Instead, apriority for Kant means independence—as regards truth-value—from experience "and even of all impressions of the senses" (B2).

specifically, from the pure intuitions of space and time. What might this look like? What kind of 'content' can be ascribed to space and time, such that a predicate can be drawn *from* these pure intuitions? In short, space and time have content to the extent that they embody multiple invariant conditions for the possibility of experience. Thus, we can think of the judgment 'space has three dimensions' as synthetic a priori, in the sense that it articulates the most basic constraint on our experience of space (B41, 4:284). At a higher level of sophistication, Kant refers to Euclid's proof that the interior angles of a triangle are equal to the sum of two right angles. On his reading, this judgment does not say anything about the ideal essence of the triangle. Just by contemplating the idea of the triangle, we would never arrive at Euclid's insight (A716/B744). Like all true geometrical propositions, Kant thinks, this proposition gives precise mathematical expression to a necessary feature of our representation of space. It is somewhat less clear how the pure structure of temporal intuition can be captured by synthetic a priori judgment. Unlike space, time does not lend itself in any obvious way to formalization, at least not to any formalization that would rival geometry for complexity and instructiveness.[45,46] Time does, however, enter into synthetic a priori judgment when combined with the pure concepts of the understanding.

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[45] Kant notes that time can be represented, by "analogy", as a "line progressing to infinity" (A33/B50). He goes on to acknowledge that space is a richer source of synthetic a priori cognition than time (A46/B64).

[46] Kant's identification of mathematical knowledge as synthetic a priori has encouraged the view that mathematics articulates the structure of pure, temporal intuition. As Philip Kitcher argues, however, there is little evidence in Kant himself for such a straightforward identification (Philip Kitcher, "Kant and the Foundations of Mathematics", pp. 33-34; cf. Charles Parsons, *From Kant to Husserl*, p. 28). Michael Friedman points to an additional reason for skepticism on this score. He notes that while mathematics makes essential use of the unit, "there is no distinguished unit in time itself" (*Kant and the Exact Sciences*, p. 105).

While somewhat resistant to quick summarization, this idea goes roughly as follows. The pure concepts of the understanding, as we just saw, represent conditions for the possibility of experience. They dictate the formal structure of empirical intuition. Because Kant's objective is to describe this formal structure, and the various relations in which it consists, we might expect that we could capture these relations in the form of judgments. These judgments would be synthetic, because they would describe the way in which the pure concepts of the understanding are augmented through intuitive realization; and they would be a priori, because they would articulate necessary conditions for the possibility of experience. According to Kant, however, the pure concepts of the understanding are not actually applied directly to the manifold of intuition in the course of real experience. Nor, he thinks, is such a direct application even possible, owing to the heterogeneity of the pure concepts and empirical intuition (A137/B176). While the former are abstract and ideal, empirical intuition is sensible. If the pure concepts are nevertheless brought to bear on empirical intuition, Kant maintains, it is through the mediation of what he calls the 'transcendental schemata'. The schemata are temporal "representations" of the pure concepts of the understanding. They enact the pure concepts at the level of real, temporal experience. Thus, for example, the pure concept *substance* is schematized as "the persistence of the real in time" (A144/B183). Amplified slightly, this means that we experience the concept *substance* as that which endures in outer experience, over and above any contingent empirical change. It is this experience that can be formulated as a judgment (A148/B188). Having brought the concept into contact with empirical intuition by means of the transcendental schematism, we are in a position to articulate the way in which the concept is intuitively augmented. Thus, it becomes

possible to assert that "in all change of appearances substance persists, and its quantum is neither increased nor diminished in nature" (B224). The bare concept *substance* does not contain the idea of persistence in time, or consistency as regards its quantum, and hence the judgment is synthetic. And the judgment is a priori, Kant thinks, because the relevant predicate has been drawn from pure, rather than empirical intuition, and thus expresses a feature of human experience that is not subject to change.

So far, then, it looks like there are two distinct routes to synthetic a priori judgment. As we have just seen, we accomplish such judgments when we articulate the necessary temporal conditions for the intuitive realization of the pure concepts of the understanding. And as we have also seen, these judgments arise when we articulate the necessary spatio-temporal conditions for the intuitive realization of an 'impure' concept—such as the concept *triangle* or the empirical concept *matter*. According to Kant, the first route represents the ideal direction taken by metaphysics; the second route, meanwhile, describes the *actual* direction taken by mathematics and natural science.

Having thus accounted for the possibility of synthetic a priori judgment, we have reached what is at the same time the point of the departure and the theoretical summit of the first *Critique*. En route, we have outlined the complex theoretical edifice that Kant constructs as means of reaching this summit, involving, first and foremost, the distinction between sensibility and understanding, and the directly related distinction between intuition and concept.

Of course, this scheme would be of limited value if it only succeeded in capturing the mechanics of synthetic a priori judgment, and indeed, Kant is able to show that his model of cognition accounts for the possibility of other forms of judgment. The first,

most quotidian form of judgment is synthetic a posteriori judgment, which we have already encountered, and which encompasses the judgments that we routinely make concerning external objects and states of affairs. On Kant's analysis, a synthetic a posteriori judgment involves the understanding and the sensibility. Seizing upon an empirical concept, which Kant understands as a product of the understanding, I conjoin with that concept a predicate drawn from empirical intuition. What this leaves, finally, is analytic a priori judgment, or simply analytic judgment (since the idea of analytic a posteriori judgment is effectively incoherent on Kant's way of seeing things).[47] Though we will of course have much to say about the nature of analytic judgments in what follows (particularly in the second chapter), we can understand them for the time being as judgments that engage the understanding alone. More precisely, they are judgments in which a predicate is drawn from the judgment's own subject concept, rather than from pure, or empirical intuition. Thus, for Kant, the judgment 'triangles are three-sided; is analytic, because the predicate *three-sided* is contained in the subject concept *triangle*. The judgment 'gold is a yellow metal', likewise, simply unpacks what is implicit in the concept *gold*. These judgments are *a priori* in precisely the sense already explained: they are indefeasible in the light of future experience. It is the grounds of their indefeasibility,

[47] An analytic a posteriori judgment would be a judgment based on concepts alone that was defeasible in the light of future experience. The idea of such judgment would be coherent, perhaps, if we could distinguish sharply between conceptual identity and conceptual content. This would enable us to say, for instance, that while 'cats are mammals' has the status of an analytic judgment at this time, it might come to have the status of an empirically false, non-analytic judgment, because some new and surprising discovery about cats might result in a renegotiation of the concept *cat*. But for Kant, this cannot work. The reason is that for Kant, conceptual identity is a function of conceptual content: a concept associated with the word 'cat' that did not contain the concept *mammal* would not count as a revised version of the concept that *was* associated with the word 'cat'; it would count as an *entirely new concept.*

however, which distinguish them from synthetic a priori judgments. Whereas the latter are empirically indefeasible in the sense that they articulate necessary conditions for the possibility of experience, analytic judgments are empirically indefeasible in the sense that they decline to make empirically substantial claims in the first place. Analytic judgments, according to Kant, bear simply on their component concepts; they do not bear on experience (A7/B11) or on any actually existing objects (A259). They represent a species of judicative necessity; but a formal, comparatively insubstantial brand of necessity.

3. Analytic Judgment in Epistemological Context

To be sure, there is nothing particularly controversial in the thought that Kant's objective in the first *Critique* is the justification of synthetic a priori knowledge. In the Introduction to the second edition, he says that the "real problem of pure reason is...contained in the question: how are synthetic judgments a priori possible?" (B19). Elsewhere, he remarks that the "only concern" of the *Critique of Pure Reason* is the illumination of the "principles of a priori synthesis in their entire scope" (A12/B25). Nevertheless, there is something slightly one-sided in the foregoing reconstruction of Kant's argument for synthetic a priori knowledge. I have supposed, in short, that Kant is concerned to supply the *a priori* part of synthetic a priori judgments—that he takes for granted our epistemic access to empirical states of affairs and simply wishes to know how empirically significant judgments can be made with necessity. In this respect, Kant's principal interlocutor is of course Hume. As we saw above, Hume allows that we have access to empirical content, but maintains that this access does not (for the most part) license necessary judgments. Kant's principal innovation, meanwhile, looks from this perspective like his departure from Hume's understanding of concepts. For the latter, concepts (or

ideas) are strictly derivative. To the extent that they come into play, they do so as 'copies' of antecedent impressions, or as arbitrary syntheses of antecedent impressions (e.g. *golden mountain*). According to Kant, however, concepts need not be tethered to empirical intuition in this way. We can allow that certain kinds of concepts might actually be logically prior to empirical intuition, either in the sense that they are conditions for the coherence of empirical intuition; in the sense that they are constituted (or defined) in a place that is 'outside of' experience (as in mathematics).

By allowing that concepts need not arise originally on the basis of empirical intuition, Kant makes possible a kind of question that would not have been meaningful from a Humean perspective. In short, it becomes possible to inquire into the conditions for the intuitive realization of a given concept. Since certain concepts have content independently of, and prior to intuition, we can ask what it would mean for such concepts to be instantiated in space and time. The answers to these questions will be *synthetic*, in the sense that they will enlarge our understanding of the concept in question. And they will be *a priori*, because concept-instantiation is subject to the a priori structure of intuition. Kant's theoretical objective—that of explaining how empirically significant judgment can be made with necessity—will have been realized on the basis of a re-evaluation of the status of concepts relative to empirical intuition.

Note that this solution also makes possible a different kind of question: namely, what properties does a given concept have in and of itself? What sub-concepts, or 'marks' does the concept *substance* have, independently of its intuitive realization? The answers to these questions will be *analytic*, in the sense that they will arise just from the analysis of the concept in question. And they will be *a priori*, because the concepts in question

stand apart from the flux of experience, and can thus be expected to remain constant. Analytic (a priori) judgment will have become possible as a *by-product* of a theoretical scheme oriented primarily around synthetic a priori judgment.

Consider, however, what our account of the first *Critique* would look like if we supposed that Kant was concerned to supply the *synthetic* component of a priori judgment—if we supposed, in other words, that he took for granted the possibility of a priori judgments, and simply wanted to know how those judgments could acquire empirical significance. In this light, Kant's principal interlocutor would be Leibniz: as we saw above, Leibniz maintains that the truth-value of all propositions whatsoever is exhaustively determined by inter-propositional relations of concept containment. Kant's principal innovation, meanwhile, would be the claim that conceptual relations underdetermine the truth-value of epistemologically significant propositions, and that it is necessary to acknowledge distinct sources of truth-determining content in pure and empirical intuition.[48] This would suggest a different way of understanding analytic judgment and its place within the first *Critique*. Analytic judgment would look less like a by-product than a point of departure. It would be the comparatively empty form of judicative necessity that we can access just insofar as we think in terms of concepts, but which we must surpass en route to a more robust, empirically substantial form of necessity. Kant's invocation of analytic judgment would have a kind of rhetorical affinity to Locke's invocation of trifling propositions, in the sense that analytic judgment would be invoked as a way of motivating an epistemologically fruitful direction of inquiry.

[48] This point will become quite important in Chapter Four when we consider the question of whether general logic is analytic, according to Kant.

These different ways of understanding the first *Critique* present a composite picture of the theoretical basis for, and the rhetorical function of, analytic judgment in Kant's landmark text. On the one hand, analytic judgment looks like an artefact of the epistemological edifice that Kant constructs in order to vindicate the possibility of synthetic a priori judgment; on the other hand, it looks like the insubstantial species of necessity that we must surpass en route to a substantial, genuinely informative brand of necessity. With reference, once again, to Kant's predecessors, let's consider whether a stronger reading of analytic judgment and its precise epistemological role is available.

Analytic Judgment as a Model of Truth

An initial suggestion would be that analytic judgment functions along the lines of Leibniz's truths of reason, offering a model of truth relative to which other kinds of true proposition can be understood. Recall that for Leibniz, truths of reason have a kind of normative status relative to true propositions in general. Although propositions like 'Usain Bolt won the race' seem to owe their truth to some contingent empirical state of affairs, and to be verified by means of external perception, Leibniz maintains that such propositions are *actually* true in just the same way that mathematical and logical truths are true: by virtue of an inter-propositional relation of concept containment. The question now is whether analytic truth has the same paradigmatic status relative to other kinds of propositional truth. Perhaps analytic judgment makes visible the deep semantic structure of all true propositions whatsoever. Of course, it would be very difficult to make this case with regard to synthetic a posteriori truths. Nothing that Kant says about statements like 'the sky is overcast' suggests that these statements are, at base, purely conceptual truths. On the other hand, Kant *seems* to suggest in places that synthetic a priori judgments are

true in the same way as analytic truths—necessarily, and by virtue of concepts alone. Thus, for example, Kant remarks that synthetic a priori judgment allows us to grasp predicates that "do not lie in [the concept *triangle*] but still belong to it" (A718/B746).

What, then, of Kant's identification of such truths as 'synthetic'. This seems to indicate quite clearly that synthetic a priori truths are *not* purely conceptual in nature. Here, perhaps, we can follow Jaakko Hintikka in reading the syntheticity of synthetic a priori truth as a matter of epistemic access. As Hintikka argues in the context of mathematics specifically, syntheticity does not mean that a pair of concepts are fundamentally distinct and only conspire to form a necessary truth through the medium of pure intuition. Rather, it means that we are unable to grasp the necessary connection between those concepts just by inspecting the concepts themselves.[49] Thus, 7 + 5 = 12 is ultimately true by virtue of the concepts 7 + 5 and 12. It is synthetic just to the extent that it cannot be *proven* from those concepts alone. It is necessary to invoke "particular representatives" of the concepts in question in order to complete the proof.[50] Before taking on the relationship between the analytic and synthetic a priori in general, let's first consider these claims with respect to the synthetic a priori judgments of mathematics.

Hintikka's argument, we might say, has both a positive and negative dimension: on the one hand, he wants to show that intuition plays a narrow, strictly inferential role in Kant's theory of mathematics; on the other hand, and largely in the interest of propping up his principal campaign, he attempts to disqualify the widely held view that, for Kant,

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[49] Jaakko Hintikka, "Kant's Theory of Mathematics Revisited", pp. 202, 211.
[50] Analytic judgments, in these terms, are distinguished by the fact that they can be apprehended as true without appeal to particular representatives. According to Hintikka, this formal feature of analytic judgments (or analytic "argument steps") best captures what Kant intends by analyticity (*Logic, Language-Games, and Information*, p. 137).

mathematical propositions depend for their truth and necessity on pure intuition. Among the evidence that Hintikka adduces in support of this secondary claim are a number of suggestive passages from the first *Critique*, passages that resonate with the one just cited above. Thus, in the Introduction, Kant remarks that the necessary connection between subject and predicate in a mathematical judgment "already attaches to the concepts" (B17). And earlier, in the Preface, he informs us that mathematics entered on to the "secure path of a science" when the geometer recognized that "he had to ascribe to the [isosceles triangle] nothing except what followed *necessarily* from what he himself had put into it *in accordance with its concept*" (Bxii, my italics).[51]

As to whether these passages indicate that mathematical truths are independent from pure intuition as regards their truth and necessity, I submit that they do not. What they point to, rather, is a kind of inconsistency in Kant's way of talking about mathematical concepts relative to other kinds of concepts. When Kant talks about the pure concepts, he represents the concept *as such* as encompassing just those properties that the corresponding object has independently of space and time. Thus, when Kant talks about the concept *substance*, he understands this to exclude the property of persistence, which substances take on in the context of temporal intuition (A147/B186). When he talks about mathematical concepts, on the other hand, he does not exclude the spatio-temporal determinations of the corresponding objects. On the contrary, a mathematical concept is only admissible *as* a mathematical concept, according to Kant, insofar as it has been determined "in accordance with the conditions of...pure intuition" (A718/B746).

[51] We could add to this list a passage from the Transcendental Methodology, in which Kant remarks that synthetic a priori judgment allows us to "go beyond" the concept *triangle*, and to grasp predicates that "do not lie in this concept but still belong to it" (A718/B746).

The concept *triangle* is only valid as a mathematical concept insofar as I have spelled out the properties that the triangle assumes in the context of spatial intuition. [52]

When Kant says that the predicates of synthetic a priori judgments already attach to the concepts, therefore, I think that we can read him as saying that those predicates attach to the spatio-temporally determined (or "constructed") concepts. This, however, is as much as to say that the predicates attach to the actual spatio-temporal *objects*. And indeed, speaking with more precision than he does in the introductory passages cited by Hintikka, this is what Kant says. He explains that in a synthetic a priori judgment, one proceeds "from the concept to the pure...intuition corresponding to it in order to...cognize *a priori*...what pertains to its object" (A721/B749). Since a priority and necessity are equivalent notions for Kant (A2, B3-4), this means that the pure intuition allows us to grasp predicates that are *necessarily* connected with the object, but which cannot simply be discovered "in the [corresponding] concept" (B73). The synthetic a priori judgments in which this distinct, non-conceptual necessity finds expression, therefore, do not ultimately reduce to analytic judgments. The element of pure intuition is not merely what allows us to *see* that synthetic a priori judgments are true; it is what actually *makes* such judgments true.[53]

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[52] Emily Carson makes this point in the course of arguing, against Hintikka, that intuition for Kant actually does perform a non-inferential role in the context of mathematics ("Hintikka on Kant's Mathematical Method", p. 443).

[53] In marginal note to his own copy of the *Critique*, Kant spells out an additional formal feature of this second, non-analytic form of necessity. According to Kant, "space and time carry with them...necessity"; but, he adds, this is "not the necessity of a concept...for we can prove that their non-existence is not contradictory" (*Critique of Pure Reason*, p. 159). In other words, there is no contradiction in simply denying the actuality of space and time. Beings having our particular representational faculties simply might not exist. In such a scenario, the propositions that we recognize as synthetic a priori could indeed be denied without contradiction. We could deny, for example, that 'the straight line

Analytic Judgment as a Standard of Necessity

If analytic judgment does not represent a model for all propositional necessity whatsoever, perhaps we might venture a weaker reading, one that would see it functioning along the lines of Hume's relation's of ideas: as a *standard* of necessity relative to which other kinds of propositions could be measured. This reading has a certain prima facie plausibility: because analytic judgments are necessary, it is clear that they are modally stronger than synthetic a posteriori judgments; and because analytic judgments owe their necessity just to their constituent concepts, there is a sense in which they are *more* necessary than synthetic a priori judgments, which—as we have just seen—depend for their necessity on the contingent structure of human sensibility. Just as Hume employs relations of ideas as a way of marking of the absence of rational necessity in other categories of judgment, it might look therefore as if Kant invokes analytic judgment as a way of marking the absence of *absolute* necessity in other categories of judgment.

As it turns out, it is relatively easy to cash out this intuition in epistemic terms, namely, when we consider the steps that we need to run through in order to verify analytic and synthetic judgments, respectively. In the case of synthetic a posteriori judgments like 'the door is blue', verification requires, first, clarity with regard to the meanings of our terms, and second, epistemic access to the particular fact on which the truth or falsity of the judgment depends. In the case of synthetic a priori judgments, like 'all events are caused', the process of verification becomes less demanding: we require

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between two points is the shortest', because there would be no spatial manifold *relative to which* this proposition would be necessarily true. Analytically necessary propositions are not conditional in this sense. They do not depend for their truth on extra-conceptual facts.

clarity with regard to the meaning of our terms, and epistemic access to *any* suitably representative fact whatsoever (A714-5/B742-3). In the case of analytic judgments, finally, the process of verification becomes less demanding still: just by virtue of knowing the meanings of the words 'body' and 'extended', I know that the judgment 'bodies are extended' is true. Since, from an epistemic perspective, this is precisely what the 'absolute necessity' of 'bodies are extended' consists in—namely, in the fact that that it is verified at the level of meaning, without reference to experience[54]—there is a meaningful sense in which analytic judgment can be used as modal benchmark for other categories of judgment. Analytic judgment figures here as just the most easily verified category of judgment; as the category of judgment for which meaning clarification is a sufficient, rather than merely necessary, condition of verification.

It is also possible to show that analytic judgment represents a modal benchmark for synthetic judgment when modal properties are understood in a semantic sense. Consider the judgment 'the door is blue'. To say that this judgment is synthetic a posteriori, on Kant's way of seeing things, means to say that it is true for a particular set of observers at a particular time: given that he allows for different forms of sensibility, he necessarily concedes that the door need not appear blue for all observers; and given that human sensibility does not offer up intuitions of permanence, he necessarily concedes that the door might cease to appear blue. Next, consider the judgment 'all events are caused'. To say that this judgment is synthetic a priori, for Kant, is to say that it is true for a particular set of observers at *all* times: these judgments are limited in their scope to human beings, with our particular faculties of intuition, but they are eternally valid,

[54] See the discussion of apriority in Chapter 2.

because they are grounded precisely in those faculties of intuition themselves. Finally, consider the judgment 'all bodies are extended'. To say that this judgment is analytic, according to Kant, is to say that is true for *all* observers at *all* times: wherever, whenever and for whomever the concept *body* is instantiated, it is instantiated as extended. If the contingency of a synthetic a posteriori judgment entails subjective and temporal relativity, and if the necessity of synthetic a priori judgments entails subjective relativity alone,[55] the absolute necessity of analytic judgments entails independence from any limiting subjective or temporal condition whatsoever (8:235, A594/B622). Analytic judgment stands with respect to other categories of judgment as the least relative category of judgment—as that category of judgment that is least restricted as regards truth.[56]

Analytic Judgment as Concept Constituting

If analytic judgment does not provide a model for synthetic judgment, therefore, it looks at least as if it provides a meaningful standard with relative to which synthetic judgment can be understood. Just as Hume's relations of ideas offer a high-water mark against which merely factual propositions can be measured, analytic judgment offers a way of

[55] Robert Hanna suggests an amendment on this score. For a judgment to be *relatively necessary*, Hanna explains, means for that judgment to be logically entailed by a set of "logically independent propositions", and thus to be at least potentially false when one or more members of that set come out false (*Kant and the Foundations of Analytic Philosophy*, p. 262). But synthetic a priori judgments, Hanna maintains, do not conform to this model. In particular, synthetic a priori judgments are never false: in appropriately structured 'possible worlds', the judgment 7 + 5 = 12 comes out as true; in worlds that are inappropriately structured, 7 + 5 = 12 just comes out just as truth-valueless. Its constituent concepts simply are not instantiated ("Mathematics for Humans", p. 334).

[56] To say that analytic judgment is the 'least' restricted category of truth, of course, is not to say that it is simply *unrestricted*. Against the thought that analytic judgments are true 'in all possible worlds', I will argue in the next chapter that they hold just for beings that are disposed to think in terms of the basic categories that we ourselves employ in synthesizing the empirically given manifold.

representing the epistemic and semantic properties of merely synthetic propositions. Of course, it still possible to be dissatisfied with this way of understanding the relationship between analytic and synthetic judgment. For all that we have shown, analytic judgment might still be a merely hypothetical maximum, rather than a form of judgment that serves some essential cognitive or epistemological purpose. By way of completing our survey of Kant's predecessors, therefore, let's see if a stronger role for analytic judgment can be drawn from our discussion of Locke's trifling propositions**.** Just as the latter express the minimal semantic content that we should grasp in order to operate with a given idea, perhaps we could see analytic judgments as conveying the conditions for the possession of, and hence the synthetic amplification of, a given concept. On this view, I could learn that gold is susceptible to rust only if were antecedently prepared to affirm the analytic judgment 'gold is a yellow metal'. The analytic judgment would have the status of a 'concept-constituting' proposition relative to the concept *gold*.

To return briefly to Locke, we may see his position on this matter as growing out of an apparent paradox: although complex objects like general substances and mathematical entities are not directly given in experience, our talk about such objects exhibits a high degree of stability. We do not actually *perceive* gold or triangles, but our ideas of gold and triangles seem quite consistent, both intensionally and extensionally. Locke resolves this paradox, we might say, by identifying semantic stability with conscious decision. The word 'gold' owes its meaning not to some fixed, natural essence, but to a collectively constituted, complex idea. The word 'triangle' owes its meaning not to some frequently encountered shape, but to a consciously formulated, geometrical idea. Since these ideas are in some ways nothing more than arbitrary placed markers, Locke is

doubtful that reflection on them will bear any real epistemological fruit. I have suggested, on the other hand, that the apparent triviality of the resulting, merely explicative propositions belies a deeper significance: since general substances and mathematical entities are individuated by their associated ideas, it looks as if we gain epistemic access to general substances and mathematical entities precisely *through* those very ideas; trifling propositions, in turn, can be seen as encompassing just those propositions that we should affirm in order to gain access to the objects in question.

Our question at this point is whether something similar is going on in Kant. In the first place, is there a sense in which the objects of epistemological interest for Kant are individuated by concepts? And if so, can we claim that assent to certain key concept-constituting propositions is a necessary condition for meaningful reflection on those objects?

At first glace, Kant's position as regards mathematical objects seems quite close to that of Locke. In mathematics, Kant explains, I begin on the basis of definitions. I do not first receive a kind of obscure presentiment of triangles which I then formalize conceptually; to the extent that I have any conception of triangles whatsoever, it is a conception that already includes the essential attributes of triangles.[57] The priority of definition relative to experience can be brought out more clearly by considering some of the slightly more esoteric inhabitants of the mathematical universe. Thus, in the Blomberg Logic, Kant takes up the issue of definition in mathematics with reference to the octagon, a geometrical object of which we do not plausibly have any consistent or

[57] Kant distinguishes in his logical writings between *essentialia* and *attributa*. With respect to triangles in particular, he species that the *sides* are *essentialia*, while the angles are *attributa* (9:61, 24:115)

clear experience: "all mathematicians' definitions are nothing but *ideas prototypas*, e.g., the concept of the octagon is not borrowed from experience; instead, the mathematician thinks such a thing through his pure reason. He represents a figure that has 8 lines and is enclosed by them" (24:254).

Of course, the mathematician does not remain at the level of definition. Instead, she "hurries immediately to intuition" (A715/B743), in which context the objects that result from definition can be interrogated as to their mathematically significant properties. What is relevant for our purposes is simply that this reference to the intuitively realized object would be impossible if were not mediated by the antecedently grasped definitions.[58] As Kant remarks in the context of synthetic objects, meaning objects, like triangles, that are consciously and deliberately constituted: "the object is given *a priori* only through [its] definition, and [only] through this definition is it possible to think it" (24:920).

On a first pass, this seems to confirm the hypothesis that we set out to test. It looks like we gain epistemic access to triangles only insofar as we are prepared to affirm a proposition along the lines of 'triangles are three-sided rectilinear figures'. Note, however, that while this proposition satisfies our basic expectations regarding analytic judgments—in the sense that it takes subject-predicate form, and attributes to its subject concept an element of the subject concept itself—Kant does not actually *say* that analytic judgments have any role to play in this context. He claims consistently that our access to

[58] Reference to the intuitively realized object would be similarly impossible if it were not mediated by an antecedently produced schema. There is good reason to think, however, that the schema itself depends on the concept *of which* it is a schema. Thus, Kant defines a schema as a "rule for the determination of our intuition *in accordance with* a certain general concept" (A141/B180). Shortly after this, he remarks that "the schema of sensible concepts....must be connected with the concept" (A142/B181).

mathematical objects runs through definitions specifically. In order to see whether this is merely an accident of terminology, or whether it points to something more fundamental, it will be worth looking quickly at Kant's understanding of definition.

Definition, according to Kant, is possible in essentially two different ways. Definitions are 'synthetic' when the concept that is defined is actually produced by the definition itself, as in mathematics; and definitions are 'analytic' when the concept to be defined is 'given' independently of the definition, as in metaphysics or morals (24:914-916).[59] As Lewis White Beck indicates, this twofold theory of definition corresponds to a twofold role for analytic judgment.[60] In the case of synthetic definitions, analytic judgment is possible on the basis of the definition itself: given the definition of a 1000-sided figure, I can produce analytic judgments stating the predicates that have been inscribed in the subject concept. In the case of analytic definitions, on the other hand, analytic judgments are actually instrumental in the formation of the definition: by analyzing the concepts that are given to the understanding, we approach an exhaustive definition of the same.[61]

This glimpse at the distinct, complementary roles of definition and analytic judgment explains why it would be a mistake to conflate these distinct kinds of

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[59] Here I am concerned just with the different ways in which definitions come to be. Kant also distinguishes between ways in which definitions relate to their objects. A 'nominal' definition suffices just for distinguishing an object externally from all other objects. A 'real' definition captures the internal properties of the corresponding object (24:919-920)

[60] Lewis White Beck, "Kant's Theory of Definition", p. 191.

[61] Since definition is subject to a rigorous standard of completeness, according to which a definition should "exhibit originally the *exhaustive* concept of a thing within its boundaries" (A727/B755, my italics), the possibility of a genuine analytic definition is actually somewhat uncertain, according to Kant (24:916). There is simply no guarantee that a concept that is 'given' to us will offer itself up completely to analysis. The possibility of obscure predicates cannot be entirely ruled out (A728/B756, 24:272, 24:918).

proposition-forming activity, and why Kant consistently declines to do so. In the case of mathematics, this would be to put the cart before the horse: it would be to take the analytic activity that trails in the wake of definition as an original form of concept-constitution in its own right. In the case of metaphysics, it would be to mistake a means for an end: it would be to take the partial, analytic judgments that are that oriented *toward* comprehensive definitions as definitions in their own right.

This in turn suggests that there is no real need to pursue the parallel with Locke as far as general substances. Although analytic judgment function somewhat differently in the context of mathematics than it does in metaphysics, what is common to both fields of endeavor is the fact that analytic judgment intervenes only after the fact. Analytic judgment seizes on concepts that are antecedently available—whether they are made available on the basis of definition or through the nature of the understanding. Analytic judgment is not responsible for instituting concepts in the first place, or even for enforcing the boundaries of concepts that have already been instituted.

General Substances

On the other hand, a question does arise concerning general substances when we try to apply this newfound understanding of analytic judgment to Kant's famous example, 'gold is a yellow metal'. Evidently, the possibility of analytic judgment presupposes the antecedent availability of some concept; but it is not clear how the concept *gold* comes to be antecedently available to us—at least in a sufficiently stable form as to offer itself up for analytic judgment. Since *gold* is an empirical concept, it follows that it is not just defined into existence, like mathematical concepts. But it is equally clear that the concept *gold* is not simply provided to us on the basis of the understanding: Kant is not

committed to the claim that our repertoire of empirical concepts is in any way rationally necessary.

One course of action would be to appeal to a different kind of definition than the ones we have encountered so far. Instead of supposing that empirical concepts are defined in a synthetic a priori fashion, as in mathematics, or analytically, as in metaphysics, we could suppose that they are defined in a synthetic *a posteriori* fashion—meaning that they are assembled on the basis of predicates harvested from empirical intuition. In that case, we could account straightforwardly for the analyticity of 'gold is a yellow metal'. It would be a second-order judgment made possible on the basis of the gradually assembled, and collectively ratified definition of 'gold'. Unfortunately, it looks like this line of interpretation is closed. According to Kant, empirical concepts simply never crystallize into definitions at all. In the first place, they are subject to variation between individuals (24:757); second, we simply cannot become "acquainted with all the possible marks that experience can teach concerning an object" (24:918); finally, such concepts are inherently dynamic: when we operate with an empirical concept, the point is precisely to improve our understanding of the corresponding subject, which means that the concept itself is susceptible to revision (A728/B756). Seen in light of these considerations—especially the first and third—it is unclear how we are to account for the analyticity of 'gold is a yellow metal'. Supposing that the concept *gold* were the subject of a widespread consensus as regards meaning, we might understand 'gold is a yellow metal' as a report on our current conceptual practices. But it could not be understood as an analytic judgment, because it might cease to reflect those conceptual practices, meaning that it was only contingently true to begin with.

As it turns out, it is possible to salvage the analyticity of propositions like 'gold is a yellow metal' by looking more closely at Kant's disclaimers concerning empirical concepts. When we do, we find that Kant assumes that empirical concepts are indeed subject to a basic, non-definitional form of conceptual stability, and that it is this basic conceptual stability that underwrites the possibility of analytic judgments having empirical content. Thus, at the same time that Kant notes that a concept might vary between individuals, he identifies a particular set of predicates as an intensional baseline: "in the concept gold one person might think, *besides its weight, color, and ductility*, its property of not rusting, while another might know nothing about this" (A727/B755, my italics). Likewise, when Kant suggests that empirical concepts are subject to augmentation or amendment on the basis of increased understanding, he suggests that such amendment occurs against the backdrop of a fixed, skeletal concept:

> in any case what would be the point of defining [an empirical] concept? - since when, e.g., water and its properties are under discussion, one will not stop at *what is intended by the word "water',* but rather advance to experiments, and the word, *with the few marks that are attached to it,* is to constitute only a designation [*Bezeichnung*] and not a concept of the thing; thus the putative definition is nothing other than the determination of the word (A728/B756, my emphasis).

In both cases, I think that we can see this constraint on the range of intensional variation as basically pragmatic in nature. If two individuals associated *entirely* different meanings with the word 'gold', then the possibility of communication involving that word would be out of the question. Likewise, if experiments carried out on water were not oriented around a basic, 'designative' concept, then there would arguably be nowhere to 'put' the

predicates garnered through experiment. As Kant remarks, we "define an empirical concept in order to add something to it afterward *per synthesin*" (24:271).[62]

As for how this initial, designative concept comes to be formed, here we encounter an interpretative problem. On the one hand, it is natural to think that such concepts would be formed in response to sensory promptings. Certain empirical regularities would be manifest in our external environment, and we would inscribe these regularities into a basic repertoire of concepts. On the other hand, it is just this account of concept formation that has lately come under some strain. Philosophers such as John McDowell have denied that Kantian empirical concepts originate with proto-conceptual intuitive content, on the grounds that our empirical intuitions are never in fact proto-

[62] The nature and function of the 'designative' concept has been somewhat obscured in the secondary literature. Thus, Lewis White Beck remarks that the meaning of the designative concept "var[ies] with experience" ("Can Kant's Synthetic Judgments Be Made Analytic", p. 176), missing the fact that it is the designative concept itself that makes meaningful variation possible (insofar as it, precisely, does not vary). Dascal and Senderowitcz make what is in some ways the opposite mistake when they suggest that "the only thing that stays stable in the evolution of [empirical] concepts is the *word*". For these authors, the fixity of the concept *water* is not achieved on the basis of a minimal, non-negotiable set of predicates; invoking the theories direct reference developed by Kripke and Putnam, they suggest that it is achieved on the basis of an immediate relation between the word 'water' and the actual substance water ("How Pure is Pure Reason? Language, Empirical Concepts, and Empirical Laws in Kant's Theory of Knowledge", p. 141). But this flies in the face of the very passage that the authors cite in support of their position, where Kant remarks that we "attach" a "few characteristics" to the word 'water', and that it is precisely these characteristics that we "think" along with the word (A728/B756). Some support for interpretation that I have advanced comes from Umberto Eco: "unfortunately, using an overly strong expression, Kant said that...empirical concepts "cannot even be defined". They cannot be defined once and for all...but admit of a first nucleus around which successive definitions will gel (or arrange themselves harmoniously)" (*Kant and The Platypus*, p. 87).

conceptual. According to McDowell, empirical intuitions are always shot through with conceptual content.[63]

Fortunately, it is not necessary to address the difficult issue of concept formation at this point. Whether empirical concepts arise on the basis of essentially non-conceptual empirical intuitions, or on the basis of some more or less spontaneous cognitive process, what is crucial is just that they are *stabilized* by means of a minimal, designative core. This in turn explains in what sense propositions 'gold is a yellow metal' are possible as analytic judgments. As it turns out, the possibility of thinking about and learning about general substances presupposes that the corresponding concepts are fixed by means of minimal, designative concepts. It is those minimal, designative concepts that are available for analytic judgment.

Finally, therefore, while we have failed to show that analytic judgments perform a concept-constituting role in natural science or mathematics, we have nevertheless managed to explain in what sense analytic judgments are *possible* in those areas. In both cases, analytic judgment is possible as an artefact of the conceptual fixity that both forms of inquiry presuppose, and that is realized in the first case through definition, and in the second case, through the quasi-definitional mechanism of designation.

It also possible to reach a conclusion here concerning the *value* of analytic judgment in the areas of mathematics and natural science. Since both fields of endeavor presuppose the availability of fixed, transparent concepts, it looks like there is ultimately very little for analytic judgment to do. Whereas philosophical concepts like *substance* and *right* might be obscure for some person at some moment (A43/B61), and might for

[63] John McDowell, *Having the World in View*, p. 43; Hannah Ginsborg, "Kant and the Problem of Experience", p. 80.

that reason be fruitfully subjected to analysis, the concepts *triangle* and *gold* will be invariably be transparent to whoever possesses those concepts, meaning that conceptual analysis can only be redundant. Kant makes this clear in the case of empirical concepts specifically:

> I do not define a concept of experience so that I can become familiar with the object by means of analysis. I do not define any concept of experience, e.g., gold, in order to infer something therefrom and to draw consequences from this definition[,] but instead only in order to establish the word-meaning of the *definitum*" (24:271).

He makes it similarly clear in the area of mathematics, insofar as he never actually says that mathematical judgments like 'all triangles are three-sided' qualify as analytic.[64] For Kant, this kind of judgment is *possible* as analytic; but it is methodologically valuable just as a definition.

Analytic and Synthetic A Priori Judgment

In comparing Kant's theory of analytic judgment with the theories of necessary judgment developed by his predecessors, we have arrived at the following conclusions. As regards its theoretical genesis, it looks as if analytic judgment can be seen as an artefact of the discursive model of cognition, with its strong distinction between intuition and concept. As regards its rhetorical function, meanwhile, the idea of analytic judgment can be seen

[64] This is in contrast to Sebastian Gardner, who cites exactly this judgment as an apparently representative example of a Kantian analytic judgment (*Kant and the Critique of Pure Reason*, p. 36). But it is in agreement with Willem DeJong, who notes that Kant "never applies the distinction between analytic and synthetic judgments to definitions in mathematics, i.e. to synthetic definitions as the pre-critical Kant already dubbed them. These definitions do not extend cognition or clarify a concept; they introduce or construct a concept by representing it in intuition *a priori* " ("The Analytic/Synthetic Distinction and the Classical Model of Science: Kant, Bolzano, and Frege", p. 248).

as a way of underscoring—by dint of its comparatively modest epistemic value—the significance of synthetic judgment.

Our attempts to define a more positive rhetorical function for analytic judgment have not so far met with success. Because Kantian judgments take two fundamentally different forms, we cannot use one species of judgment as a semantic model for the other; and because the necessity that characterizes analytic judgments is in a certain sense opaque to us, we cannot invoke these judgments as a modal benchmark against which other kinds of proposition can be measured.

Similarly, when we tried to show that analytic judgments might perform a kind of concept-constituting role, and might in this sense represent an epistemic condition of possibility for synthetic judgments, we came up short. As it turns out, concepts in mathematics and natural science are fixed not by analytic judgments, but by definitions. The latter represent the necessary epistemic condition for synthetic predication. Analytic judgment comes on the scene here just as an epistemologically redundant, merely formal possibility.

In what follows, I will try to show that a stronger role for analytic judgment is available than the ones we have so far encountered. Appropriately enough, this role emerges at precisely the point where Kant's theory of judgment breaks most sharply from the theories passed down from his predecessors—namely, in the theory of synthetic a priori knowledge.

Justifying Syntheticity

According to Kant, the judgment 'every event has a cause' is a synthetic a priori judgment (B3). As we know, this means that the predicate *having a cause* does not belong to the

concept *event*, but is conjoined with it in the act of judgment. Suppose, however, that a skeptic challenges Kant's analysis of this judgment. For the skeptic, the judgment 'every event has a cause' does not emerge out of a complex operation involving the understanding and pure intuition; it is a straightforward case of the partial identity of concepts. The concept *event* simply *contains* the concept of causation as a component; we achieve insight into the necessity of the judgment not by drawing on pure intuition, but simply by analyzing the concept *event*. On this reading, it is true that events are necessarily caused, but this truth is first and foremost conceptual. It is not a substantial, metaphysical truth. Kant's entire enterprise comes to look like a trivial exercise in unpacking basic concepts.

Consider now how Kant can defuse this challenge. At a minimum, he needs to show that the concept of causation does not belong to the concept *event*. This will succeed in demonstrating that the judgment, if it can be made at all, is synthetic—meaning, at minimum, that concept and predicate are in a certain sense foreign to one another, and need to be brought together in an act of judgment.[65] How can this be demonstrated? Obviously, Kant cannot take what might look to be the simplest path available. He cannot argue that the concept in question—the concept which bundles together events and casuation—is experientially unmotivated. Kant admits that our actual experience of events is invariably accompanied by a representation of causation (A192/B237). If concepts are entirely beholden to experience for their content, therefore,

[65] It is possible to doubt whether this criterion is sufficient for a judgment's being synthetic (e.g
Henry Allison *Kant's Transcendental Idealism*, p. 90; Moltke Gram, "The Crisis of Syntheticity", pp. 156-157). My argument requires just that this criterion be necessary for a judgment's being synthetic.

we have excellent grounds for including the concept of causation within the concept *event.*

Instead of referring the problem directly to experience, therefore, Kant will undertake a more subtle strategy. He will argue that we can reflect coherently on the concept *event* without calling to mind the idea of causation (A9/B13). That being so, he will claim that the latter does not belong to the former in an immediate sense, but represents a kind of addendum, something added to the concept from without. This, in turn, means that the judgment *every event has a cause* cannot be a straightforward conceptual truth, as our (not altogether) hypothetical challenger maintains. Since we can coherently think the concept *event* without at the same time thinking the predicate *having a cause*, it cannot be the case that the latter simply falls out of the former. If they are necessarily conjoined, as our challenger maintains, and as Kant himself recognizes, then there must be some explanation for this fact beyond simple conceptual identity. Providing this explanation is the task of the first *Critique*, and the doctrine of synthetic a priori judgment more specifically.

Of course, this does not yet show that analytic judgment *per se* plays any role in clarifying the status of synthetic a priori judgment. It seems clear that some kind of conceptual reflection is required if we are to demonstrate that putative synthetic a priori judgments really are synthetic a priori. But it is not yet clear that this process of conceptual reflection should be identified with analytic judgment. This doubt can be motivated by observing that we have not yet shown whether the conceptual reflection in question involves insight *into* the concept in question—that is, into the intension (Inhalt) of the concept. For all that I have shown, it might be possible to determine that causation

falls outside of the concept *event* without having any notion of the predicates that belong *inside* the latter. In that sense, it might look like we can identify a judgment as synthetic a priori without being in a position to form what we typically think of as analytic judgments, that is, judgments that articulate the content of a given concept.[66] Consideration of what we actually *do* when we reflect on a concept, however, suggests that this is not the case. In the case of an empirical concept like *event*, what we do is call to mind the intuitive content that we associate with the concept; and this means summoning to mind certain intuitively given properties. Plausibly, some of these properties will prove to be necessary conditions for the representation of the concept. Thus, Kant argues that we cannot represent a body to ourselves without representing some region of space for the body to occupy (B5). Likewise, we cannot represent an event without situating that event at some determinate moment, some determinate starting point. From here, it is a short step to the insight for any given event, there must a time *before* the event gets underway (A9/B13).[67] In order to experience something as an event, it is necessary that we represent for ourselves a time that precedes the event. An event that was always already underway would not be recognizable as an event.[68]

Having thus established a very basic intuitive representation of events, we are in a position to clarify the status of other properties vis-à-vis the phenomenon in question.

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[66] As we will see in the next chapter, Kant also includes under the banner of analytic judgment those judgments which articulate the 'anti-intension' of concepts. He calls such judgments 'negative analytic judgments'.

[67] "If I perceive that something happens, then the first thing contained in this representation is that something precedes..." (A198/B243).

[68] Kant makes this point indirectly in the first Analogy: "If you assume that something began to be, you would have to have a time in which it did not exist" (A188/B231). Arthur Melnick paraphrases this helpfully as follows: "If *a* comes to be, it must come to be or begin to exist at some time *t'*, and it must be the case that it did not exist (or obtain) at some time *t* previous to *t'*" (*Kant's Analogies of Experience*, p. 60).

Thus, granted that events must be preceded by some stretch of time, and must occur *at* some relatively well-defined point in time, we can ask whether events must occur in a particular place. In other words, are events necessarily determined in both time *and* space? For the purposes of this cursory demonstration, the answer to this question appears to be no. We can easily call to mind things that happen, but which do not happen in a particular place. Any purely mental episode, such as an imagining, or a remembering, would seem to fit the bill. Similarly, and closer to our immediate concerns, it becomes possible at this point to recognize that events need not stand in relation a cause. We know that events must be preceded by some stretch of time; but it is at least possible to *imagine* that this time might be empty, devoid of anything like a cause.

Therefore, it looks like it is necessary to have insight into conceptual intension in order to identify judgments as synthetic a priori. In order to justify the claim that causation does not belong to the concept *event*, we require insight into the predicates that *do* belong necessarily to this concept.

By way of summing up, let's consider what we've just seen in more general terms. Kant, as we know, wants to show that it is possible to form necessary judgments that do not owe their necessity to concepts alone. He wants to show that it is possible to go 'outside' a given concept, and to discover a predicate that coheres necessarily with that concept. Our skeptic, on the other hand, thinks that necessary predication is always and only conceptual predication. If am able to conjoin a given subject and predicate with necessity, the predicate must simply belong to the subject. Kant, in response, must supply a method for showing that necessary predication is not always conceptual predication—that a subject and predicate concept might cohere necessarily without being identical. As

we saw, Kant cannot proceed by pointing to a counter-example in experience, meaning an instance in which the objects picked out by the subject and predicate are manifestly dissociated; the necessary coherence of those objects is presupposed as a basic faktum. Instead, he must show that we can attend to particular concepts, and determine with authority that a given predicate falls outside of the concept. What I have tried to show above is that we do this by reflecting on a given concept and recognizing that the predicate in question is not implied by the predicates that arise naturally in conjunction with the concept. This presupposes that we can become conscious of the predicates that do arise naturally in conjunction with the concept—or, in Kant's terminology, that we are capable of analytic judgment. The legitimacy of the idea synthetic a priori judgment, we can conclude, presupposes the possibility of analytic judgment.

We might add that what we have said applies equally to the relationship between synthetic a posteriori judgment and analytic judgment. Supposing that a skeptic were to claim that the idea of being-overcast is actually included in the concept *sky*, and that the proposition *the sky is overcast* is consequently tautological, it would be necessary to demonstrate that the concept *sky* does not include the predicate *being-overcast*, which would mean becoming clear about what does belong to the concept *sky*. What makes this particular process of conceptual clarification quite trivial is that it can be carried out with reference to the object in question. We simply need to wait until the sky is no longer overcast and to impress upon the skeptic their continued willingness to refer to it as 'the sky'. In the case of synthetic a priori judgments, on the other hand, this option is not available, because the object invariably exhibits the property that is in question: bodies are always extended, space is always three-dimensional, etc. The kind of conceptual

clarification that I have identified with analytic judgment is thus indispensible if the category of synthetic a priority is to have any authority.

The Methodological Role of Analytic Judgment in Metaphysics

Though Kant is by no means unconcerned with the problem of justifying synthetic a priori judgments *as* synthetic a priori judgments, he does not acknowledge the particular justificatory role that analytic judgment can and does play in this effort. To the extent that he acknowledges that the justification of synthetic a priority presupposes conceptual clarification at all, it is in a strictly negative, Humean sense. He acknowledges that we must be able to demonstrate the non-identity of two concepts if we are to classify the judgment that unites them as synthetic (B15-16). He does not go as far as to argue that a demonstration of non-identity requires insight into the content of either concept.

This does not mean, however, that Kant fails to acknowledge that analytic judgment plays any presuppositional role whatsoever relative to synthetic a priori judgment. On the contrary, he indicates in several places that analytic judgments perform a kind of preliminary, clarificatory function relative to their synthetic counterparts. Thus, in the Introduction to the *Critique*, Kant says that analytic judgments are "important and necessary...for attaining that distinctness of concepts that is requisite for a secure and extended synthesis as a really new acquisition" (B23). Elsewhere, Kant says that analytic judgments "provide the means" to the synthetic a priori judgments that properly comprise metaphysics. By formulating "several" analytic judgments with regards to a given concept, and in that way "approach[ing]" its definition, we make possible subsequent, "synthetic propositions" concerning that concept (4:273-274). Regrettably, Kant does not indicate in either of the passages just cited exactly *how* analytic judgments enable the

formation of synthetic a priori judgments. In order to get a sense of what he has in mind, let's consider an example.

In the same section of the *Prolegomena* that I just cited, Kant offers an example of clarificatory analytic judgment: 'substance is that which exists only as subject' (4:273). Elaborated slightly, this means that the concept *substance* is instantiated just as a subject of predication, never as a property, or accident, that could be predicated of some other thing (B129). Expanded still more, it means that substance is a necessary ground for any real predication whatsoever: as Beatrice Longuenesse puts it, "all concepts of real determination are attributed in judgment" to substance.[69] Having established a certain kind of insight into the concept in question, we can now attempt to specify the synthetic propositions that can be advanced concerning that concept. Again, Kant neither indicates how such propositions are to be produced, nor does he specify in the *Prolegomena* which synthetic propositions follow from the analytic judgment cited above. Fortunately, we have already encountered a proposition concerning substance that Kant counts as synthetic a priori: 'in all change of appearances substance persists, and its quantum is neither increased nor diminished in nature' (B224). Supposing that the analytic judgments we have assembled are relevant to this judgment, our question reduces to the following: in what sense do those analytic judgments enable, or make possible, their synthetic a priori counterpart? The answer seems to be as follows. The analytic judgments establish the basic meaning of the concept *substance*; the synthetic a priori judgment then

[69] Beatrice Longuenesse, *Kant and the Capacity to Judge*, p. 331. Longuenesse explains that for Kant, the concept of substance is stripped of ontological significance and defined entirely with respect to judgment: " the Copernican revolution achieved in the *Critique* means that the categories of substance and accident arise from our acts of discursive reflection, our acts of judging applied to the sensible given" (p. 329).

elaborates this meaning within the context of human sensibility. The analytic judgments tell us that all real predicates refer to a substratum; the synthetic judgment adapts this principle to the conditions of temporal intuition, explaining that this condition also holds when the predicates in question arise non-simultaneously.

Someone might wonder, of course, whether it is necessary to withdraw to such an abstract distance in order to grasp the insight that is here at issue. They might think that humans are capable of grasping basic, phenomenological facts about their experience—such as the fact that changes occur against the backdrop of self-identical substrata—without entering into an antecedent process of concept clarification. This worry rests on a cogent vision of empirical insight; crucially, however, this vision does not represent a challenge to Kant's claims. On the contrary, it articulates the Humean position that Kant takes for granted, and that he is eager to surpass (A91/B123-4). It conveys our ability to grasp regularities, but does not explain whether, or how, we are able to grasp the corresponding class of judgments with necessity. The demonstration we just rehearsed, whereby the concept *substance* was clarified as regards its essential content, and then amplified in the context of spatio-temporal sensibility, supplies this explanation.

At the same time, this demonstration clarifies the precise *form* of necessity that characterizes propositions like *substance persists*. In showing that *substance* makes no reference to the idea of persistence, or indeed to temporal duration in any sense, it helps to motivate the insight that the idea of persistence derives from pure, temporal intuition. This in turn indicates that the judgment is not true in all possible worlds, but is true—at most—in worlds structured in terms of time, i.e. for those forms of cognition that are

constrained to experience reality in temporal terms. This, finally, indicates that the judgment is synthetic a priori.

Though the remark is somewhat allusive, I think that Kant has precisely this kind of semantic and modal clarification in mind when he says that analytic judgment is "requisite for a secure and extended synthesis as a really new acquisition". A synthetic judgment may be performed in relative ignorance of the nature and origin of its constituent concepts, and with only an uncertain sense of its modal force. But to install a given judgment as a *really new acquisition* within the systematic body of propositions that for Kant, represents the ideal shape of metaphysical inquiry, means understanding exactly *why* and *to what extent* that judgment is true.

The Methodological Role of Analytic Judgment in Geometry

Before concluding, it is worth mentioning another remark that Kant makes concerning the methodological role of analytic judgment. In the Introduction to the second edition of the first *Critique*, he notes that geometry presupposes "a few" analytic judgments as part of its "chain of method" (B16-17). Kant's examples, 'a = a' and '(a+ b) > a', make it easy to see what he has in mind. Ideally speaking, any proof in Euclidean geometry will include a premise stating that geometrical magnitudes are equal to themselves, and a premise stating that the addition of two magnitudes yields a magnitude greater than the first. The price of denying the first premise would be incoherence; and the price of denying the second premise would be to admit the possibility of negative magnitudes (which neither Euclid nor Kant are prepared to do).[70]

[70] Kant employs the expression 'negative magnitudes' in a strictly relative sense. The number -7 is a negative magnitude relative to the number 7 insofar as it can only be

Having established in relatively short order that the sub-axiomatic base of geometry is comprised of analytic judgments, and that the latter are therefore distant but necessary conditions for whatever synthetic a priori judgments the geometer might produce, it is tempting to simply move on to our conclusion. Unfortunately, we are brought up short by an apparent inconsistency in Kant's account—namely, by the fact that he *denies* that 'a = a' and '(a+ b) > a' qualify as analytic, only a few lines after stating quite clearly that they do:

> And yet even these, although they are valid in accordance with mere concepts, are admitted in mathematics only because they can be exhibited in intuition. What usually makes us believe here that the predicate of such apodictic judgments already lies in our concept, and that the judgment is therefore analytic, is merely the ambiguity of the expression. We should, namely, add a certain predicate to a given concept in thought, and this necessity already attaches to the concepts. But the question is not what we should think in addition to the given concept, but what we actually think in it... (B17).

On the other hand, perhaps Kant only *seems* to deny that 'a = a' and '(a+ b) > a' are analytic in this passage. According to Mark Siebel, what Kant is doing here is something quite different: he is reshaping the definition of analytic. He is saying that 'a = a' and '(a+ b) > a' qualify as analytic judgments even though they are not analytic according to the containment criterion.[71]

While agreeing with Siebel as far as the claim that Kant is not simply contradicting himself, I part company with him on the question of what exactly Kant is saying here. From my perspective, the key sentence in the above-cited passage is the first one, where Kant remarks that 'a = a' and '(a+ b) > a' are admitted in mathematics "only

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combined with the latter in such a way that the latter is cancelled (7 + (-7) = 0). Kant denies that a magnitude could be in some way intrinsically negative (2:175). Like Euclid, he regards magnitudes as essentially spatial, thus as essential positive (Michel Friedman, *Kant and the Exact Sciences*, p. 112).

[71] Mark Siebel, ""It Falls Somewhat Short of Logical Precision": Bolzano on Kant's Definition of Analyticity", p. 113.

because they can be exhibited in intuition". What this means, I think, is that while 'a = a' and '(a+ b) > a' are analytic by virtue of the standard criteria for analyticity, they have application within the context of geometry only because they happen to articulate a necessary feature of spatial intuition. (Other analytic judgments, like 'gold is a yellow metal', fail to articulate any necessary features of spatial intuition, and so have no application within the context of geometry). This means that in the context of geometry, the judgments 'a = a' and '(a+ b) > a' actually do not have the status of analytic judgments: they are more akin to synthetic a priori judgments, in the sense that they capture a relation of real, rather than purely conceptual, necessity.[72] Kant's apparent denial that 'a = a' and '(a+ b) > a' are analytic would then come down just to the claim that we cannot have analytic insight into real necessities: we cannot know a priori that extended spatial magnitudes are equal to themselves, or that two extended magnitudes combine to produce a larger magnitude. To claim such insight would be to overstep an epistemic boundary that Kant is quite concerned to defend.

No doubt, the proposed line of interpretation still faces some challenges. The passage in question is quite obscure, and it is not clear whether there is an altogether coherent meaning to be extracted from it. What is salient for our present purposes is just that the passage gives no real support to the thought that analytic judgment has some essential role to play in the context of geometry. Like geometrical axioms themselves, the sub-axiomatic principles 'a = a' and '(a+ b) > a' turn out to be essentially synthetic a priori

[72] In Chapter Four, having gotten clearer on the criteria for analyticity, I will argue that the judgments in question are not in fact analytic. For the moment, I am concerned simply to understand how Kant himself views these judgments.

in nature. They have application in the context of geometry just because they conform to the structure of pure spatial intuition.

Conclusion

Let's conclude by reviewing what we have seen over the course of this chapter concerning the relationship between analytic and synthetic judgment. First, it emerged that analytic judgment can be viewed as a coherent, but incidental, by-product of an epistemological scheme oriented toward the justification of synthetic a priori judgment. The semantics of synthetic a priori judgment require a strong distinction between concept and intuition; this in turn makes it possible to inquire into concepts just in themselves; the result is analytic judgment.

Next, it emerged that analytic judgment performs a contrastive, rhetorical function relative to synthetic judgment. Because analytic judgments owe their necessity just to their constituent concepts, Kant can invoke the idea of analytic judgment as a way of underscoring the empirical significance of the *other* class of necessary propositions that he introduces: synthetic a priori judgment.

As it turned out, analytic judgment also performs a second, more or less rhetorical function. Precisely because the concepts in an analytic judgment are bound together necessarily, the idea of analytic judgment can also be invoked as a way of underscoring the contingent bond between the subject and predicate concepts in a synthetic a posteriori judgment, and the only *relatively* necessary bond between the subject and predicate concepts in a synthetic a priori judgment. Analytic judgment can function as a kind of lens through which the epistemic and semantic peculiarities of both kinds of synthetic judgment can be viewed.

With an eye to a stronger methodological role for analytic judgment, we asked whether analytic judgments in geometry or natural science could be regarded as concept-constituting propositions, and thus, whether they could be seen as supplying the basic conditions of possibility for synthetic predication in those areas. While tempting, we concluded that this line of speculation is misguided, and that the role of concept constitution is performed by definitions, rather than analytic judgments. The latter are possible in geometry and natural science, but just as recapitulations of already-established definitions, which means that their methodological value is effectively null.

Methodologically significant roles for analytic judgment came to light in connection with the central innovation of the first *Critique*—namely, synthetic a priori judgment. First, analytic judgment is required for the justification of synthetic a priori judgments *as* synthetic a priori judgments. In order to show that the judgment 'x is y' is synthetic a priori, I necessarily need to unpack the concept *x* as regards its content. Otherwise, it is open to the skeptic to claim that 'x is y' is a trivial, conceptual judgment. Finally, analytic judgment plays an important role in the consolidation of synthetic a priori judgments as genuine items of knowledge. By clarifying the essential, analytic content of our concepts, we are able to describe the precise manner in which those concepts are adapted to our spatio-temporal sensibility.

In conclusion, therefore, it looks like analytic judgment plays a much more important epistemological role than might be expected. Far from simply an empty by-product of the theoretical system erected in the first *Critique*, analytic judgment proves to be an integral part of that system.

Chapter 2

Kant's Theory of Analytic Judgment

In the last chapter, I attempted to clarify the epistemological role that analytic judgment performs in the context of Kant's critical philosophy. Against the tendency to dismiss analytic judgment as an uninteresting by-product of Kant's critical system, I tried to show that it performs an important series of functions within that system. First, analytic judgment performs a meta-theoretical, or justificatory role relative to synthetic a priori judgment, in that the possibility of defending a given judgment *as* synthetic a priori presupposes that we have analytic insight into its constituent concepts. Second, and most importantly, analytic judgment enables the formation of synthetic a priori judgments in the area of metaphysics. By analyzing the concepts that are given to us by the understanding, it becomes possible to form synthetic a priori judgments bearing on the same concepts.

The last chapter also enabled us to clarify the precise sense in which analytic judgment *can* be regarded as a trivial by-product. Both natural science and geometry, on Kant's reckoning, are obliged to avail themselves of definitions. In the case of natural science, this has to do with fixing some minimal phenomenal concept that can in turn be synthetically augmented; in the case of geometry, it has to do with establishing a skeletal concept that can be 'constructed' in pure intuition and interrogated in the context of empirical intuition. Since both sciences presuppose the construction of minimal concepts, both sciences hold out the possibility of analytic judgment. But whereas analytic judgment manages to clarify obscure representations in the context of metaphysics, analytic judgment in the context of natural science and geometry only manages to

recapitulate established definitions. In this sense, it is epistemologically redundant, and Kant is accordingly reluctant to advertise the possibility of analytic judgment in these areas.

To summarize, therefore, we might say that while analytic judgment is *possible* in the context of metaphysics, natural science, and geometry, it is methodologically *valuable* just in the context of metaphysics. In the third and fourth chapters, it will become possible to augment this conclusion in an important way. What we will see is that analytic judgment is only fully defensible in the context of metaphysics. Only given certain facts about the concepts that feature in metaphysical judgments is it possible to construct a coherent picture of analytic judgment.

What I want to do in the present chapter is to lay the groundwork for this conclusion, namely, by giving a more detailed account of what exactly analytic judgment is. I begin, in Section 1, by citing some of Kant's definitions of analytic judgment, and by extracting from those definitions a list of the criteria that Kant expects an analytic judgment to satisfy. I take some preliminary steps toward clarifying those criteria, ruling out some of the more problematic interpretations to which they might be (and indeed have been) subject. In Section 2, I make note of the questions and problems that arise from the lengthy and varied list of criteria that he associates with analytic judgment. Picking up on the claim that an analytic judgment is necessarily true, I ask whether analyticity and truth are indeed compatible. I note that there are two reasons to be skeptical in this regard: first, it is not clear that any judgment can be *known* as true just on the basis of a relation between its subject and predicate concept; second, it is not clear that any judgment can actually *be* true just by virtue of a judgment-internal relation

between concepts. Next, picking up on Kant's claim that an analytic judgment is necessarily a subject-predicate judgment, I draw on Bernard Bolzano and Jerrold Katz to show that this requirement can plausibly be undermined, indeed, that it can be undermined on the basis of Kant's own assumptions. As regards Kant's containment criterion, according to which the subject concept in an analytic judgment necessarily 'contains' the predicate concept, I make note of the well-known objection that the idea of containment itself is unclear, or 'metaphorical', and I consider Lanier Anderson's attempt to render this notion more tangible. Moving on to Kant's identity criterion, I note that Kant himself is ambivalent as regards its exact formulation—that he oscillates between the claim that explicitly identical judgments like 'man is man' are analytic, and the claim that such judgments are not in fact analytic, because they fail another criterion for analyticity: the criterion according to which an analytic judgment necessarily clarifies its subject concept. Finally, concerning the requirement that the subject concept in an analytic judgment be 'already thought' in the predicate concept, I follow Gram and Beck in suggesting that this requirement sits awkwardly with Kant's apparently logical criteria for analyticity (containment, identity, contradiction). Whereas the latter admit judgments as analytic just insofar as their constituent concepts are necessarily related, the former seems to admit judgments as analytic only as insofar as this necessary relation between concepts is realized in consciousness.

1. Defining Analytic Judgment

In lieu of a single, canonical definition of analytic judgment, I propose to begin our examination of this concept with a series of key, more-or-less definitional passages from

Kant's critical period. The first of these has already been excerpted briefly at the outset of this study; it comes from the Introduction to the first edition of the *Critique*:

> In all judgments in which the relation of a subject to the predicate is thought...this relation is possible in two different ways. Either the predicate *B* belongs to the subject *A* as something that is (covertly) contained in this concept *A*; or *B* lies entirely outside the concept *A*, though to be sure it stands in connection with it. In the first case I call the judgment analytic, in the second synthetic. Analytic judgments (affirmative ones) are thus those in which the connection of the predicate is thought with identity...One could call [them] judgments of clarification...since through the predicate [these judgments] do not add anything to the concept of the subject, but only break it up by means of analysis into its component concepts, which were already thought in it (though confusedly) (A6-7/B10-11).

The second passage comes from Kant's *Prolegomena* of 1783:

> All analytic judgments rest entirely on the principle of contradiction and are by their nature a priori cognitions, whether the concepts that serve for their material be empirical or not. For since the predicate of an affirmative analytic judgment is already thought beforehand in the concept of the subject, it cannot be denied of that subject without contradiction; exactly so is its opposite necessarily denied of the subject in an analytic, but negative, judgment, and indeed also according to the principle of contradiction. So it stands with the propositions: Every body is extended, and: No body is unextended (simple) (4:267).

The third passage comes from a polemical work of 1790, and elaborates on the example just cited:

> That all bodies are extended is necessarily and eternally true, whether they exist now or not, and whether that existence is brief or lengthy, or goes on throughout all time, i.e., eternally. The proposition says only: these truths do not depend upon experience (which must occur at one time or another), and are therefore not limited by any temporal conditions (8:235).

Finally, a relatively succinct definition from the *Jäsche Logic*, a text compiled in 1800:

> Propositions whose certainty rests on identity of concepts (of the predicate with the notion of the subject) are called analytic propositions (9:111).

Between them, these four passages manage to characterize analytic judgment in terms of a surprising array of criteria. We are told that an analytic judgment is distinguished by the relation that obtains between the *thought* of the subject concept and the *thought* of the

predicate concept, by the logical relation that holds between the subject and predicate concepts *themselves*, by a relation that the judgment as a whole bears to the principle of contradiction, by the degree of truth that characterizes the judgment, by the degree of certainty that attends the judgment, and so on. In order to get clarity on the nature of analytic judgment, it will be necessary work through these different criteria, to draw attention to the ways in which they are unclear or problematic individually, and to the ways in which they might conflict. Before making a start on this project, though, it looks as if it is necessary to make sure that our basic question has been defined appropriately.

Judgment and Proposition

While the task of the present chapter has been defined as an investigation into the nature of analytic 'judgment' (*Urteil*), the last passage cited indicates that Kant is also prepared to talk about analytic 'propositions' (*Satzen*). This creates the suspicion that our field of study has been defined too narrowly, and that what is really at issue is a property—analyticity—that is realized by two different kinds of statement. As it turns out, this suspicion is unwarranted. In the first place, propositions are not a category of statements apart from judgments. A proposition is simply a judgment that can be characterized in modal terms as assertoric, meaning a judgment that positively asserts that X is Y (as opposed to a judgment that embeds 'X is Y' within a hypothetical, viz. 'if X is Y, then Z', or a judgment that embeds 'X is Y' within a disjunction, viz. 'X is Y or X is Z') (9:109, 24:934). Second, and most importantly, it is precisely such assertoric statements that Kant has in mind when he speaks of analytic judgments. As we will see in more detail in Chapter Four, analytic judgments are necessarily positive assertions; they are never

merely hypothetical or conditional. This means, finally, that the class of analytic judgments is identical with the class of analytic propositions.

Quality

Having clarified our field of interest, let's begin by asking after the most basic determinations of analytic judgments. As regards what Kant calls 'quality', it is clear from the first two passages cited above that he allows for both affirmative and negative analytic judgments. Affirmative analytic judgments ascribe to the subject concept a predicate that is "already thought" in the subject concept (A154/B193). Negative analytic judgments, meanwhile, *deny* to the subject concept the "opposite" of one of its predicates (4:267). Thus, because the concept *body* includes the predicate concept *being-composite*, the judgment "all bodies are composite" counts as an affirmative analytic judgment; and because *being-composite* "conflicts with" the predicate *being-simple*, the judgment "no body is simple" counts as a negative analytic judgment (29:789). As for whether we can point to analytic judgments that are *neither* affirmative nor negative, there is at least some reason to think that we can. In his catalogue of the different possible forms of judgment, Kant indicates that judgments divide qualitatively into three distinct forms: affirmative, negative, and infinite (9:103). Before moving on to the question of truth, let's see whether we can speak sensibly of infinite analytic judgments.

At first blush, infinite judgment does not appear to be meaningfully distinct from negative judgment: where negative judgment takes the form, generically speaking, of 'no X is R', infinite judgment takes the form 'X is not-R'. According to Kant, however, the distinction between negative and infinite has real intensional significance: what the negative judgment *says*, he explains, is that X is excluded from the sphere of R; what the

infinite judgment says, on the other hand, is that X in included in the infinite (and indeterminate) sphere of not-R. For our purposes, what is crucial is what Kant goes on to tell us here, namely, that the distinction between negative and infinite judgments has no *logical* significance (9:104). Logically speaking, the judgments 'no X is R' and 'X is not-R' are effectively equivalent: both affirm that X is excluded from the sphere of R. Since it is just such relations of inclusion and exclusion that are relevant in assessing analyticity and syntheticity (as Kant's language of 'containment' already suggests, and as we will see in more detail over the course of this chapter) this means that the distinction between negative and infinite judgments is redundant in this context. An infinite analytic judgment would be indistinguishable from a negative analytic judgment: it would be a judgment that excluded the 'opposite' of a given concept from the sphere of that concept. We can thus conclude that the categories of affirmative and negative exhaust the possible qualitative determinations of analytic judgment.

Truth and Falsity

On the question of whether analytic judgments can be both true and false, we find conflicting indications in Kant's texts. On the one hand, Kant seems to take for granted in his major works that analytic judgments are universally true: when the topic of truth arises at all, as in the third passage cited above, it is seemingly just to specify the *way* in which analytic judgments are true. On the other hand, Kant does offer an example of a false analytic judgment in his unpublished notes—an example, moreover, that allows us to explain the way in which such judgments might work. Kant's brief example runs as follows: "Wenn ich sage... ein ruhiger Korper ist bewegt, so heißt das...insofern ich als

ruhig denke, ist er bewegt, und Urteil wäre analytisch und falsch" (18:648).[73] In other words, when I predicate movement of a body at rest, I generate a false analytic judgment. As for why this judgment is *analytically*, rather than just obviously false, this is a matter of logical opposition: the judgment "a moved body at which is at rest", Kant explains elsewhere, "is a contradiction" (29:271).

This, however, suggests that the logic of the false analytic judgment is comparable to that of the *true* negative analytic judgment. Just as the negative analytic judgment 'no body is simple' depends for its analyticity on the relation of opposition between the concepts *body* and *being-simple*, the false analytic judgment 'a body at rest is moving' depends on the opposition between *body at rest* and *body in motion*. When we reflect that Kant's sole example of a false analytic judgment could even be transformed into a true negative analytic judgment, namely, 'no bodies at rest are moving', the basis for drawing a sharp theoretical distinction between true and false analytic judgments comes to look even more tenuous. False affirmative analytic judgments are convertible into true negative analytic judgments and false negative analytic judgments are convertible into true affirmative analytic judgments.

Logical Form

As for logical form, it is at least strongly implied in the first passage cited above that only judgments having subject-predicate form qualify as analytic. Passages like the second one cited, meanwhile, are typical in taking this apparent restriction for granted; that is, in assuming that an analytic judgment is a judgment that involves a relation between two

[73] On this particular example, see also: Ian Proops "Kant's Conception of Analytic Judgment", p. 590; Konrad Marc-Wogau, "Kants Lehre vom analytische Urteil", pp. 141-2.

terms, called 'subject' and 'predicate', respectively. Unfortunately, Kant never offers an explicit defense of this restriction (and even seems to suggest in one passage that no such restriction holds (4:266)). On the other hand, he does point to a pair of basic differences between subject-predicate judgments and all other kinds—differences that may prove decisive as regards this particular issue.

In the category of relation, Kant's table of judgment recognizes three basic kinds of judgment: categorical (or subject-predicate), hypothetical, and disjunctive. According to Kant, categorical judgments are distinct from hypothetical and disjunctive judgments in a fundamental respect: whereas the former involve a relation between concepts, hypothetical and disjunctive judgments involve a relation between judgments (A73/B98, 24:932). Thus, when I judge that 'if X, then B', according to Kant, I am not asserting a relation between the concepts *X* and *B*; I am asserting a relation between the judgments 'X is the case' and 'B is the case'. Likewise, when I judge that 'X is B or C', I am not asserting a relation between *X*, *B*, and *C*, but between the judgments 'X is B' and 'X is C'.

With this distinction between categorical judgments and the two other kinds of judgment in place, it is possible to draw attention to a further difference, one on that I have already lightly sketched above. According to Kant, categorical judgments can be characterized in modal terms as assertoric. This means that they are performed in such a way that "the assertion or denial…is considered actual (true)" (A74/B100). In other words, when I judge that 'X is B', I am judging that X *actually is* B. The judgment is more than an abstract juxtaposition of concepts; it makes a claim concerning the objective correlate of 'X'. Hypothetical and disjunctive judgments, meanwhile, are comprised of problematic judgments, meaning judgments "in which affirmation or

negation is taken as merely possible (optional)" (A74-5/B100).[74] Thus, when I form the hypothetical judgment 'if X, then B', I am not asserting that X is the case; nor I am asserting that B is the case. I am putting forward the judgments 'X is the case' and 'B is the case' as *candidates* for affirmation or negation; that is, as judgments could *potentially* make a claim on reality, but which do not do so insofar as they are embedded in a hypothetical (or disjunctive) judgment. In Chapter Four, it will be possible to determine whether this fact about hypothetical and disjunctive judgment entails that no such judgments can qualify as analytic.

Containment

Of course, even if it turns out that an analytic judgment is necessarily a categorical judgment, this does not mean that every categorical judgment is analytic. A judgment like, 'the cat is on the roof' has subject-predicate form, but is not analytic, since the predicate concept *being-on-the-roof* has only a contingent relationship with the subject concept, *the cat*. Based on what we know of analytic judgment so far, it is clear that analytic judgments require a much stronger relation between subject and predicate. In the first passage cited above, Kant indicates that this relation takes the form of containment: in an analytic judgment, the predicate concept is actually 'contained in' the subject concept.

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[74] This apparently psychological characterization of what it means for a judgment to be problematic is a reflection of Kant's own remarks on this score. He says that "problematic judgments are those in which affirmation or negation is *taken* as merely possible (optional)" (A74-5/B100, my emphasis). This language, in turn, reflects Kant's understanding of modality. He explains that a judgment's modal properties are unrelated to the "content of the judgment" (A74/B100), but concern rather "the *way* in which something is maintained or denied in judgment" (9:108, my emphasis).

What therefore does Kant mean by containment? On the one hand, containment seems to denote an essentially psychological relation. It looks as if a concept *X* is contained in another concept *Y* when reflection on *Y* in some way entails reflection on *X*. This psychological reading is reflected in the claim that an analytic judgment spells out what is 'covertly' contained in the subject, insofar as the idea of covert containment evokes the idea of a mental representation that is less than fully transparent. It is more strongly reflected in a passage from the Transcendental Methodology, in which Kant represents containment in explicitly psychological terms, explaining that an analytic judgment presents just what is "actually contained in the thought" (A721/B749). But this way of understanding containment is slightly out of step with remarks that Kant makes elsewhere. Thus, Kant says in the *Prolegomena* that what is contained to a concept is what belongs to the "logical essence" of that concept (4:294). Logical essence, in turn, is not a matter of what this or that person happens to think in conjunction with a concept; it encompasses "all the necessary marks of a thing" (9:61).[75]

This logical construal of containment gains further strength from Kant's distinction between two different forms of containment. According to Kant, a concept contains other concepts "within itself" to the extent that the latter are constitutive of the former. Thus, the concept *substance* is contained *in* the concept *body*; the first concept forms part of the 'content' (*Inhalt*) of the second.[76] Conversely, a concept contains other concepts "under itself" to the extent that it is contained in those concepts as a constituent part (B40). Thus, the concept *body* contains the concepts *potato*, *armchair*, and *meteorite*

[75] Lewis White Beck also remarks on this ambiguity in the containment criterion ("Can Kant's Synthetic Judgments Be Made Analytic", p. 171).
[76] See also Michael Friedman's discussion of 'containment-in' and 'containment-under' in *Kant and the Exact Sciences* (p. 67).

under itself; these narrower concepts form one small part of the 'extension' of the concept *body*. In order now to see why this distinction should weigh in favor of a logical understanding of containment, it suffices to make two observations: first, that Kant understands containment-in and containment-under as reciprocal (9:95), so that any relationship of containment-in (e.g. *substance* is contained in *body*) can be expressed in terms of a relationship of containment-under (e.g. *body* is contained under *substance*); and second, that only one member of this reciprocal pair can be understood in psychological terms: while it is at least plausible that reflection on a given concept entails reflection on what is contained *in* that concept, it is highly implausible that reflection on a concept entails reflection on everything that is contained under it (e.g. when I think of the concept *body*, it is unlikely that I think simultaneously of the innumerable concepts denoting bodies of one kind of another). Since the proposed reciprocity between containment-in and containment-under thus places considerable strain on a psychological construal of containment, it seems that we should conclude for the time being that this criterion should be understood in logical terms, meaning that it should be understood in terms of the relations that obtain between concepts taken in an ideal sense.

Concept Complexity

As a corollary to this last criterion, it is worth noting the basic assumption about concepts that it rests upon. In short, if Kant thinks that analytic judgments exhibit a relation of containment between subject and predicate, then he evidently thinks that at least some concepts—namely, those that can function as subject concepts in analytic judgments—can be said to contain other concepts. In other words, certain concepts are such that they embody one or more distinct sub-concepts within themselves and such that they can be

"resolved" (*aufgelöst*) into those sub-concepts by means of analysis (4:266). In a lecture course from 1783, Kant confirms that the availability of such concepts is a necessary condition for analytic judgment and he gestures in the process toward a specifically mereological understanding of containment: "one can pass analytic a priori judgment on all concepts which allow of dissection; if they are simple, then they cannot be dissected, e.g. being, something." (29:793).

Identity

Initially, the next criterion seems quite straightforward. A judgment is analytic, Kant explains, when its subject and predicate concepts are either explicitly identical, as in the judgment 'man is man', or implicitly identical, as in the judgment 'man is a rational animal' (9:111, 24:937). But questions arise when we try to flesh out the identity criterion. First, what is it that counts as identical in these judgments? If we try to answer this question in light of the first judgment alone, we might conclude that Kant's invocation of identity targets the linguistic form of judgments. But on this way of understanding things, we would have to conclude that 'man is a rational animal' is a *non*-identical judgment, because the word 'man' is not identical with the words 'rational' or 'animal'. Better then, to conclude that what Kant has in mind when he speaks of identity is conceptual form, even in the case of linguistically symmetrical judgments like 'man is man'.[77] The claim that this judgment is explicitly identical then comes down to the claim that its surface linguistic form perfectly reflects an underlying relation of concept identity. The claim that the judgment 'man is a rational animal' is implicitly identical,

[77] Hanna, *Kant and the Foundations of Analytic Philosophy*, p. 142.

meanwhile, comes down to the claim that its surface linguistic form imperfectly reflects an underlying relation of concept identity.

As for how concept identity itself should be understood, here we seem to be brought back to the idea of containment, that is, the idea that one concept can be said to embody another concept, or set of concepts. Drawing on this idea, we can say a concept is completely identical to another concept when everything contained in the first is contained in the second; and we can say that a concept is partially identical to another when not everything that is contained in the first is contained in the second. Thus, the concept *man* is completely identical with the concept *man* in that everything which belongs to *man* belongs to *man*; and the concept *man* is partially identical to the concept *animal* in that *animal* belongs to but does not exhaust the content of *man*. Kant allows that both kind of identity, complete and partial, can form the basis of analytic judgments.[78]

The next question is whether the distinction between explicit and implicit identity is the same as the distinction between complete and partial identity. The answer, it seems, is no. It is possible to imagine an explicitly identical judgment that would not at the same time be completely identical, such as 'all red cars are red'. Conversely, it is possible to imagine an implicitly identical judgment that would indeed be completely identical: 'gold is a yellow metal' is implicitly identical, in the sense that its outer linguistic form gives no

[78] Given that for Kant, most concepts are not susceptible of complete analysis, there is a sense in which he actually has no choice but to admit analytic judgments based on the partial identity of subject and predicate. To do otherwise—to insist that an analytic judgment draw out its subject concept in its entirety—would be to concede that analytic judgment is only possible in the context of natural science and geometry, that is, in those contexts in which it is methodologically least valuable.

hint of its underlying identity, but it plausibly exhausts the concept *gold*, which means that it is plausibly a completely identical judgment.

Contradiction

Importantly, Kant restricts the range of the identity criterion just to *affirmative* analytic judgments (A7/B10, cf. 29:789). By definition, the subject and predicate concepts in a negative analytic judgment are precisely non-identical. This in turn allows us to understand why Kant suggests in the same passage that the principle of contradiction is the "*general* principle of all analytic judgments" (my emphasis, cf. 4:267, 20:278, 20:323, 29:789). Although negative analytic judgments are distinct from affirmative analytic judgments from the perspective of identity, they are similar in the sense that both give rise to contradiction when negated. Thus, the affirmative analytic judgment 'all bodies are extended' gives rise to a contradiction when we consider its negation, 'a body is not extended'; and the negative analytic judgment 'no unlearned man is learned' gives rise to contradiction when we consider the judgment 'an unlearned man is learned' (A153/B192).

As for how contradiction itself should be understood, here we face a situation similar to the one we encountered above. Judging by the second example, we might conclude that contradiction is a matter of surface logical form: 'X is not L and L' is already contradictory, regardless of the meanings that we attach to 'X' and 'L'. On this way of understanding things, however, we would have to conclude that 'a body is not extended' is non-contradictory, since the logical schema that this judgment instantiates, 'X is B and not E', has many true substitution instances (e.g. Dogs are mammals and not crustaceans). That it is therefore necessary to consider the underlying conceptual form of

judgments in assessing contradictoriness is borne out by Kant's explicit remarks on this subject. He explains that "a contradiction occurs in a judgment only if I abolish a predicate therein, and yet retain *in the concept* of the subject a predicate identical with this" (20:304, my emphasis; cf. A150/B190). Thus, if the judgment 'a body is not extended' is contradictory, it is because the judgment 'abolishes' the predicate concept *extension*, while simultaneously 'retaining' that concept in the subject concept, *body*. Rather than 'X is B and not E', the judgment has the structure 'X is B(E) and not E'. It is contradictory at the level of conceptual, rather than linguistic form.

Like the narrower identity criterion, therefore, it turns out that a consistent application of the contradiction criterion presupposes the existence and the accessibility of complex concepts. Except for a few exceptional cases, like 'no unlearned man is learned', the negation of which can be recognized immediately as contradictory, we will for the most part require some kind of insight into the content of our concepts in order to see that a given judgment can be negated only on pain of contradiction.

A Priority

In the passage cited above from the *Prolegomena*, Kant indicates that analytic judgments are a priori "by their nature". What, therefore, does it mean to say that a judgment is a priori? According to Kant, it means that the judgment in question has a pair of "inseparable" properties: strict universality and necessity. Strict universality is an expression of the validity of a judgment.[79] For a judgment to be valid with strict

[79] Validity, for Kant, is an expression of how widely a concept or intuition applies, or how widely a given judgment holds. Thus, Kant says that space and time, as pure intuitions, are "*valid*…no further than for objects of the senses, hence only for experience"; and he contrasts space and time in this regard with the categories, which

universality means that "no exception" to what it asserts "is allowed to be possible" (B4). Necessity turns out to be slightly more elusive. Despite the centrality of this idea in Kant's epistemology, he does not actually explain what it means for a judgment to be necessary in a general sense.[80] On the other hand, he does spell out the two different ways in which a judgment can be necessary, a distinction that will allow us to get at the form of apriority that is proper to analytic judgments.

In judgments like 7 + 5 = 12, Kant thinks, the subject and predicate concepts are necessarily related. Importantly, though, he maintains that the source of this necessity cannot be located in the judgment itself. To the extent that 7 + 5 and 12 are necessarily conjoined, their conjunction is realized within the context of our spatio-temporal experience. In other cases, however, judicative necessity flows from a relation internal to the judgment. In judgments like 'gold is a yellow metal', the necessary conjunction between the subject and predicate concept is a function of the relation between the concepts *gold*, *yellow*, and *metal*. This is borne out by the fact that a denial of 'gold is a yellow metal' results in contradiction. While we can coherently doubt that 7 + 5 is equal to 12, the thought that a gold might not be yellow conflicts with the concept *gold*, meaning that the thought simply cannot be coherently entertained. Insofar as necessity can be evaluated in terms of contradiction, it is 'absolute'. Since it is this stronger brand of necessity that is relevant in the context of analytic judgment, we can summarize with Kant by saying that analytic judgments are a priori in that they are "valid with strict universality and absolute necessity" (20:323).

"extend to objects of intuition in general" (B148, my emphasis). I take up the issue of validity again in Chapter Three (ftn.5).

[80] Richard Robinson, "Necessary Propositions", p. 293.

It is also worth acknowledging the more common acceptation of the term 'a priori'. According to much of the post-Kantian philosophic tradition, apriority has the sense of a validity or a knowability that is in some way 'independent of experience'. This standard acceptation finds an echo in Kant's own remarks with respect to apriority. He says that "we will understand by *a priori* cognitions...those that occur *absolutely* independently of all experience" (B2), and that "I already have all the conditions" for an (analytic) a priori judgment "before I go to experience" (A7/B12). If Kant is nevertheless set apart from the post-Kantian tradition on this issue, it is because the relation between a priori judgment and experience is best seen from Kant's perspective as a peripheral feature of apriority. Strictly speaking, an a priori judgment is a judgment that is valid with strict universality and necessity. The notion that such judgments are valid independently of experience is made possible by an additional claim concerning the nature of experience, to the effect that empirical intuition cannot underwrite a judgment that is valid with strict universality and necessity.[81] Empirical intuition can tell us that some state of affairs obtains in this place at this moment; but it cannot tell us that some rule, or state of affairs obtains everywhere and across all time (B3, A7/B11, B14, A91/B124, A112, A258-9/B314, A353, 4:268, 17:617, 20:323). Supposing that judgments having a priori validity are possible, therefore, it follows that they must be based on something other than empirical intuition; and supposing that such judgments are *knowable* a priori, it follows that they must be knowable without reference to experience.

[81] Although this arguably captures the logical relation between Kant's formal definition of apriority and the idea of experience-independence, a representation of their dialectical relation might proceed in the opposite direction. We might say that Kant begins from an essentially Humean claim as regards the kinds of claims that can be licensed by experience, and that he defines an a priori judgment in terms of this initial claim, as the kind of judgment that *cannot* be licensed by experience.

The epistemology of a priori judgments, finally, provides a way of understanding the distinctive phenomenology of a priori judgments—the fact that an a priori judgment is "coupled with the consciousness of its necessity" (20:265, 20:273, B3). Since a priori judgments are known without reference to experience, they are known simultaneously as judgments that cannot be falsified by any empirical counter-example, thus as judgments that have the force of necessity.

Clarification

In our discussion of the methodological role of analytic judgments, we found that analytic judgment performs an important clarificatory role relative to synthetic a priori judgment. A synthetic a priori judgment can be established as a "really new construction" only insofar as its subject concept has been subjected to analysis. What we want to know now is the following: first, to what extent is this clarificatory role constitutive of the idea of analytic judgment; and second, what precisely does this clarification entail? As regards the first question, Kant gives a fairly unequivocal answer in the first passage cited above when he identifies analytic judgments as "judgments of clarification". Later in the *Critique*, he again places this clarificatory function at the center of the idea of analytic judgment: "in the analytic judgment", Kant explains, "I remain with the given concept in order to discern something about it" (A154/B193). Finally, in his *Preisschrift* essay of 1791, Kant elevates clarification to the level of a criterion for analyticity: according to Kant, explicitly identical judgments (like 'man is man') are not actually analytic, since they fail to "elucidate' their constitutive concepts (20:322).

Supposing for the time being, therefore, that an analytic judgment only qualifies as such to the extent that it clarifies or elucidates its subject concept in some way, we can

try to shed more light on what clarification entails. As it turns out, it involves something more than 'making clear' a given concept. For a representation to be clear, according to Kant, just means for that representation to be conscious. Thus, an object is clear just to the extent that I am perceptually aware of the object; and a concept is clear just to the extent that it is minimally, perhaps just verbally, present to consciousness. Since knowing that there is an object in front of me is consistent with not knowing what kind of object it is, and since awareness of some concept is consistent with not knowing what it contains, it is clear that a higher degree of transparency is required. Kant calls this higher degree of transparency 'distinctness'. According to Kant, a representation is distinct when all of its partial determinations are themselves clear (7:135). Thus, an object is distinct to the extent that I can identify its individual parts; and a concept is distinct when I can identify its constituents. Supposing that analytic judgment is essentially oriented toward some kind of clarification, therefore, it looks as if it is oriented specifically towards distinctness. Indeed, according to Kant, it is just insofar as analytic judgment provides for the "distinctness of concepts" that it fulfills its mandate vis-à-vis synthetic a priori judgments (A10/B23).

'Already Thought'

At first blush, the next, and most frequently invoked criterion for analyticity seems to rub awkwardly against the notion that analytic judgments have as their function the making-distinct of concepts. If a judgment qualifies as analytic just insofar as it says "nothing in the predicate except what was actually thought already in the concept of the subject" (4:266, cf. A6-7/B10-11, A154/B193, A164/B205, A259/B314, 8:232, 9:59), then it is difficult to see exactly to see in what sense such judgments are clarificatory. Far from

rendering my concept internally transparent, the analytic judgment would seem just to spell out my already transparent concept. We get initial clarity on this issue from a rider that Kant appends to the passage just cited: while the predicate is 'already thought' in the subject, it is thought neither as "clearly nor with the same consciousness". In other words, while the predicate is in a certain sense present in our pre-theoretical reflection on the concept, it is not, properly speaking, distinct. The function of the analytic judgment, in this sense, can be understood as the making-distinct of the predicate that we indeed think, but that we think obscurely.

Setting aside additional complications, it is worth making two points. First, since Kant obviously cannot suppose that when I think of a concept, I necessarily think of constituents that the concept in question does *not* have, he stipulates that this way of characterizing analytic judgments applies just to affirmative judgments (A7/B10). In other words, he does not way to say that 'no bodies are simple' spells out what is 'already thought' in the concept *body*. Second, it is worth noting that Kant also invokes the idea of what is 'already thought' as a negative criterion for synthetic judgment: since "the concept of twelve is by no means already thought" in the concept of 7 + 5, Kant concludes that the judgment 7 + 5 = 12 is synthetic in nature (B15, cf. A164/B205).[82]

2. Possible Concerns

What I want to do now is to consider some of the problems that arise in connection with Kant's conception of analytic judgment. Since these problems arise not just at the level of exact detail, but at a much more general level, I will temporarily sideline the issue of the

[82] The containment criterion has a similar function. According to Kant, we are assured that a given judgment is synthetic when we find that the predicate concept is *not* contained in the subject concept (B15, 17:617).

various criteria that Kant associates with analyticity, and consider an epistemological concern that bears on the idea of analytic judgment in general.

Negative Judgments

Above, I concluded that analytic judgments are either affirmative or negative. Here, I want to point to an asymmetry between these two categories, one that points in turn to an assumption about meaning, and our access to meaning, that Kant will be obliged to discharge. In short, negative analytic judgments involve a higher epistemic standard than affirmative analytic judgments. Whereas our justification for the latter derives just from a priori insight into the meaning of terms, justification for negative analytic judgments derives from a priori insight into the meaning of terms *and* into the relations of semantic or logical opposition in which our terms are involved. We have a priori justification for the judgment 'no bodies are simple' insofar as we know, first, that the concept *body* contains the *being-composite* as a constitutive mark, and second, that *being-composite* is essentially opposed to *being-simple*.[83] Absent this insight, our justification for the judgment 'no bodies are simple' could only plausibly be a posteriori, meaning that it would depend on knowledge of the empirical fact that no bodies are simple.[84]

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[83] Ian Proops sets this epistemic standard at a misleadingly low mark. He says that when Kant speaks of the "opposite" of some concept, he means the "negation of one its constituent marks; so, for example, the concept "unextended" counts as *an* "opposite" of the concept "body," as does the concept "non-substance"" ("Kant's Conception of Analytic Judgment", p. 591). But this suggests that we have access to relations of logical opposition just insofar as we capable of attaching negative prefixes to our terms—which cannot be the case, since Kant thinks that the concept *simple* is logically opposed to the concept *composite*.

[84] This epistemic standard also applies to false affirmative analytic judgments. If we did not know that the concept *body at rest* was essentially opposed to the concept *body in motion*, then we would not know that the judgment 'a body at rest is moving' is false in an analytic sense. Judgments that are simultaneously negative, false, and analytic, on the

Truth: Epistemic Concerns

Though we have yet to adequately clarify Kant's understanding of analytic judgment, it looks as if a judgment qualifies as analytic for Kant just when its subject and predicate concepts stand in a particular kind of relation to one another. This being the case, there is a temptation to think of analyticity as a property that a judgment has by virtue of a particular internal relation; and there is a corresponding temptation to think that we have performed, or grasped, an analytic judgment when we have enacted, or made distinct, an internal relation of this kind. On the other hand, Kant seems to think that analytic judgments are universally true (and that when they are not true, they are nevertheless convertible into truths). This suggests that performing or grasping an analytic judgment involves more than simply enacting or making-distinct a judgment-internal relation; it means grasping a *truth*. What we want to know, then, is how we get from the apparently internal relation of concept containment to the richer, and apparently external relation of truth. Invoking his own example of (ostensibly Kantian) analytic judgment, Laurence Bonjour argues that for Kant, knowledge of concept containment is sufficient for knowledge of truth:

> once the proposition that all brothers are male is seen to be analytic, the epistemological question of how I can be justified in believing that it is true without any appeal to experience is regarded by [Kant] as entirely solved. All that is required, says Kant, is to "extract" the predicate from the subject "in accordance with the principle of contradiction" (B12); that is, since the predicate concept merely repeats part of the subject concept, so that the denial of the proposition would result in an immediate contradiction, anyone can see at once that such a proposition must be true.[85]

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other hand, do not involve this standard. Just by knowing that the concept *body* contains the predicate *being-composite*, we know that 'no bodies are composite' is a false analytic judgment.

[85] Laurence Bonjour, *In Defense of Pure Reason*, pp. 20-1.

According to some recent authors, however, the view that is attributed to Kant here cannot be correct. Just because I know that 'body' means 'extended thing'—and hence, that the judgment 'bodies are not extended' is contradictory—I am not thereby entitled to the claim that 'bodies are extended' is true. Justification for this claim presupposes epistemic access to the *fact* that bodies actually are extended things.[86] That kind of epistemic access might well presuppose basic conceptual competence as a necessary condition: in order to see whether bodies are extended, it is reasonable to suppose that I should first be clear on the meanings of 'body' and 'extended'. But conceptual or linguistic competence is not plausibly sufficient for epistemic access to the extendedness of bodies. Insight into this fact presupposes some kind of extra-linguistic acquaintance with the world.

Truth: Semantic Concerns

And the issue of truth has more than merely epistemic dimensions. Not only does Kant maintain that we can *know* that an analytic judgment is true just on the basis of its meaning; he seems to believe that an analytic judgment *is* true just by virtue of its meaning. This much is signaled in the third passage cited above, in which Kant says that the judgment 'all bodies are extended' is "necessarily and eternally true", whether or not

[86] Margolis and Laurence raise this concern in the context of Paul Boghossian's 'epistemic' model of analyticity, according to which our a priori access to the meaning of certain sentences entitles us to hold those sentences as true ("Analyticity Reconsidered", p. 380). Margolis and Laurence note that this epistemic model of analytic judgment is subject to the same objections generally brought against the 'metaphysical' model of analytic judgment: just as the meaning of a given sentence alone does not confer truth or falsity on that sentence, the meaning of a sentence alone does not entitle us to *hold* that sentence as true ("Boghossian on Analyticity", p. 294).

any bodies actually exist. Along with Gilbert Harman,[87] we can express the worry that grows out of this apparently 'metaphysical' conception of analytic truth as follows. In short, how could it be the case that a given judgment is true just by virtue of its meaning and independently of "the way the world is"? Could we even imagine the kind of case that Kant seems to allow for—the case in which a given judgment is true, and indeed necessarily so, but nevertheless fails to line up with any existential facts? Shouldn't we maintain, with Paul Boghossian,[88] that a proposition S is true when S means that p *and* p? In order to see what kind of response Kant can offer to these questions, it will be necessary in Chapters Three and Four to subject his views of concepts, truth, and analytic truth in particular, to scrutiny.

The Instability of Categorical Form

As regards logical form, the basic concern is that the restriction that Kant imposes on analytic judgments cannot be sustained. Proceeding on the basis of essentially Kantian assumptions, it looks as if it is possible to produce analytic judgments that are not categorical as regards their logical form. The philosophic tradition bears witness to two main strategies for extending the class of analytic judgment beyond the bounds of categorical form. The first strategy originates with Bolzano, and has its point of departure in the claim that what is genuinely 'important' in the idea of analytic judgment is the fact that the truth-value of an analytic judgment "remains the same no matter what changes are made" in its constitutive concepts. Thus, the judgment 'all bodies are composite'

[87] Gilbert Harman, "Quine on Meaning and Existence", p. 128.
[88] Paul Boghossian, "Analyticity Reconsidered". p. 364.

suffers no change in truth-value when we put any other, appropriately complex concept in place of *body*, and any other element of that complex concept in place of *composite*.[89]

But if the validity of an analytic judgment is independent of the "particular ideas" of which it is constituted, and is in fact just a function of its underlying propositional form, then we are already entitled to abandon the restriction to subject-predicate form. The judgment 'all men are learned or not learned' is not a subject-predicate judgment; but it remains true no matter terms are substituted for 'man' and 'learned', and so qualifies an analytic according to Bolzano's definition.

The second strategy for extending the class of analytic judgments reflects a different understanding of what makes analytic judgment true. According to Jerrold Katz, an analytic judgment is not distinguished by its truth-preserving propositional or logical form. It is distinguished by the fact that it is semantically redundant. Thus, 'all bodies are extended' is analytic in the sense that it merely draws out the "sense structure" of the concept *body*. That this judgment also happens to take subject-predicate form is incidental as regards its status as analytic, a claim that Katz illustrates by providing examples of judgments that do not have subject-predicate form, but which are nevertheless redundant in the appropriate sense, for instance, 'John walks with those with whom he strolls'.[90]

In sum, therefore, we have two essentially different strategies for undermining the restriction of analytic judgment to judgments having subject-predicate form. Picking up on the logical inflections of Kant's theory, Bolzano broadens the class of analytic judgment to include all judgments that are true by virtue of underlying propositional

[89] Bernard Bolzano, *Theory of Science*, p. 197 (Sec. 148).
[90] Jerrold Katz, *Cogitations*, p. 62.

form. Picking up on its semantic inflections, on the other hand, Katz broadens analytic judgment to encompass all judgments exhibiting a relation of concept containment.[91] In the next chapter, we will see whether Kant is able to defend the claim that analytic judgments are necessarily subject-predicate judgments in the face of these challenges.

Containment

As noted above, there is a way in which the containment criterion can be understood in psychological terms. The claim that *X* is 'contained' in *Y* can be treated as if it were equivalent to the claim that *X* is 'thought' in *Y*, which is to say, as a claim about the content of our mental representations. On this way of understanding containment, which a number of commentators have embraced, largely without comment[92], it is subject to a

[91] The view that concept containment can be generalized beyond the bounds of categorical judgment, and that analytic judgments need not therefore take subject-predicate form, is a view taken by a number of authors (e.g. Hans-Ulrich Hoche, *Nichtempirische Erkenntnis*, p. 11; Robert Allison, *The Kant-Eberhard Controversy*, p. 56; Robert Hanna, *Kant and the Foundations of Analytic Philosophy*, p. 144-5). The view that the analytic-synthetic *distinction* generalizes beyond the bounds of categorical judgment has also received support from several commentators, who have noted that Kant places existential judgments on the synthetic side of the ledger, while simultaneously denying that existence is a predicate (A598/B626) (Richard Robinson, "Necessary Propositions", pp. 296-7; Newton Garver, "Analyticity and Grammar", pp. 398-399). On this line of reasoning, the judgment "Barack Obama exists" would qualify as a synthetic judgment, but not as a subject-predicate judgment, because it lacks a predicate. Ian Proops helpfully singles out the confusion underlying this proposed extension of the analytic-synthetic distinction. He notes that Kant does not say that existence is not a predicate *tout court*, but just that it is not a *real* predicate. According to Proops, this just means that when we predicate existence of a given subject, we do not narrow the extension of the subject-concept with respect to any possible world ("Kant's Conception of Analytic Judgment", p. 592). Predicating existence of a subject is therefore akin to predicating the subject of itself: just as there is no possible world in which the concept *Barack Obama* is instantiated but in which Barack Obama does not exist, there is no world in which *Barack Obama* is instantiated but in which Barack Obama is not self-identical. Existence and self-identity, Kant indicates, are *logical* rather than real predicates (A598/B626).

[92] e.g. James Van Cleve, *Problems from Kant*, p. 18.

number of problems. Most glaringly, it seems to make analyticity relative to individuals: if I happen to think *X* and *Y*, then 'X is Y' is analytic for me; but it is non-analytic for someone who fails to think *X* and *Y* together. I will take up this and similar problems in my discussion of Kant's more explicitly psychological criterion below. In the meantime, it is worth recalling our provisional conclusion from the first section, to the effect that containment is more plausibly understood in logical terms. This much is signaled by Kant's distinction between 'containment-in' and 'containment-under', which suggests an image of concepts as arranged objectively in terms of relations of hierarchy and subordination. By developing this image in detail, Lanier Anderson pushes back against what is probably the best known objection associated with Kant's containment criterion: Quine's complaint to the effect that Kant leaves the idea of containment "at a metaphorical level".[93,94]

According to Anderson, we can understand Kant's talk of 'containment' in terms of the stratified conceptual 'trees' developed in antiquity by Porphyry and in the modern period by Linnaeus.[95] On this model, to say that the concept *body* 'contains' the concepts *substance* and *extension* is to invoke the subordinate position of *body* on the conceptual tree that begins at the top with the genus *substance* and that proceeds downwards to *body*

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[93] Willard van Orman Quine, *From a Logical Point of View*, p. 21. Quine presents this complaint alongside another: that the containment criterion only applies to subject-predicate judgments. His account is typical in assuming that Kant has no defensible reason for imposing this restriction.

[94] Quine's objection as regards the 'metaphorical' nature of the idea of containment is anticipated by Bolzano, who describes containment as a "figurative [form] of expression" (*Theory of Science*, p. 196).

[95] Anderson is picking up here on a suggestion originally put forward by Willem de Jong. According to De Jong, Kant's idea of 'containment' should be understood in the context of the "conjunction model of concepts", a "view of concepts that enjoyed wide acceptance in the seventeenth and eighteenth centuries" ("Kant's Analytic Judgments and the Traditional Theory of Concepts", p. 623).

via the differentia *extended*. This model also allows Anderson to explain what Kant means when he says that a concept belongs to, but is *not* contained in, another concept. What he means, evidently, is that while the conjunction between subject and predicate is empirically attested, the subject and predicate concepts cannot be located on the same conceptual tree. Thus, the angle-sum property is correctly predicated of triangles, but is neither a genus nor a differentia above the concept *triangle*, and so is not contained in the latter.[96]

Unfortunately, if Anderson succeeds in rendering the idea of containment less metaphorical, he does so by significantly weakening the Kantian notion of analyticity. Having explained conceptual content in terms of classificatory schemes that have no claim to invariability, and will in many cases change in accordance with our evolving understanding, Anderson is obliged to admit that an ostensibly analytic judgment might lose that status, because it might cases to reflect our classificatory schemes. Thus, while the judgment 'whales are mammals' might qualify as a purely analytic judgment today, in the sense that it reflects our current understanding of whales, it might cease to reflect our understanding of whales, and thus cease to qualify as analytic judgment. According to Anderson, this problem is not fatal: at least as they apply to empirical concepts, we can simply drop the requirement that analytic judgments be valid a priori; we can embrace the prospect of revisable analytic judgments. According to Ian Proops, however, Anderson's account of containment is indeed fatal: apriority cannot be divorced from analytic judgment without collapsing the Kantian notion of analyticity altogether. In light of these considerations, Proops concludes that Quine's original objection is sound, and that the

[96] Anderson, "Kant's Analytic Judgments and the Traditional Theory of Concepts", p. 48.

Kantian idea of containment fails to rise above the level of metaphor.[97] In the next chapter, we will try to determine whether there is a way to avoid sacrificing apriority while simultaneously illuminating the idea of containment.

Concept Complexity

Perhaps the most basic threat to the idea of containment comes not from the vagueness of the metaphor, but from the assumption embedded in it: the assumption that at least certain concepts can be regarded as complex in the first place. Supposing that this assumption has not been justified, then neither Kant nor anyone else can give an account of propositional necessity in mereological terms. The complex conceptual 'wholes' that would underwrite such an analysis will be unavailable.

In a recent article, Fodor and Lepore help to motivate this concern by pointing out that the "usual way" of justifying claims about concept complexity is by appealing to analyticity itself. Thus, the usual way of arguing that *bachelor* contains the concepts *unmarried* and *man* is by appealing to the analyticity of 'bachelors are unmarried men'. But this strategy, they observe, simply begs the question: in identifying a judgment as analytic, we have already presupposed that its constituent concepts are in some intertwined at the level of content. What is required, they suggest, is a justification of containment claims that is *independent* of claims about analyticity.[98]

Identity

As regards our next criterion, a concern arises from Kant's contradictory remarks concerning the status of explicitly identical judgments. Certain texts suggest that Kant

[97] Proops, "Kant's Conception of Analytic Judgment", p. 600.
[98] Jerry Fodor and Ernest Lepore, "Analyticity Again", p. 119.

allows for explicitly identical analytic judgments: he cites the judgment 'a = a' as an example of analytic judgment in both the *Critique* and the *Prolegomena*, and states clearly in both the *Jäsche Logic* and the *Vienna Logic* that analytic judgments can be either explicit or implicit. Other texts suggest that Kant rejects the possibility of explicitly identical analytic judgments. Thus, in a passage that we have already encountered, Kant remarks that explicitly identical judgments are not analytic because they fail to render their subject concepts distinct (20:322). Likewise, in a lecture course from 1790, he remarks that 'tautological' judgments fall outside of the analytic-synthetic distinction altogether, since they tend neither toward the distinctness of concepts nor the growth of knowledge (24:667).

As for why Kant's ambivalence on this question should create an interpretive problem, it is because the status of identical judgments like 'a = a' will affect our understanding of analytic judgment overall. In short, if 'a = a' is not analytic, then it will look as if analyticity is subject to an epistemological or psychological criterion. A judgment will not qualify as analytic just insofar as it its subject and predicate concepts are identical; a judgment will qualify as analytic insofar as its subject and predicate concepts are identical *and* insofar as this identity is at least potentially opaque to a person confronted with the judgment.

Contradiction

Famously, Kant describes the principle of contradiction in the *Critique* as the "universal and completely sufficient principle of all analytic judgment" (A151/B191, cf. A150/B190), seeming to suggest that any judgment that gives rise to contradiction when negated qualifies as analytic. As critics have observed, however, this apparent

endorsement forces Kant into conflict with himself. Since mathematical judgments are cognizable according to the principle of contradiction (B14), Kant would have to admit that they are analytic, contrary to his identification of such judgments as synthetic a priori. Since certain statements having non-subject-predicate form give rise to contradiction when negated, Kant would have to admit that analyticity spills out beyond the bounds of categorical form. Finally, since certain existential statements ('there is no married bachelor') can be drawn into contradiction through negation ('there is a married bachelor'), Kant would have to conclude that at least some existential judgments are analytic.[99]

Fortunately, this problem can be resolved quite straightforwardly. Contrary to Kant's somewhat inflated claims on behalf on the principle of contradiction, it is easy to conclude on the basis of his more measured remarks that he does not believe that all judgments whose negations are contradictory are analytic. Just a few lines above the famous identification of contradiction as "completely sufficient" for analyticity, Kant says that "*if* the judgment is analytic...its truth must always be able to be cognized sufficiently in accordance with the principle of contradiction" (A151/B190, my emphasis). Supposing a judgment *actually is* analytically true, in other words, then that judgment can be grasped *as* analytically true just insofar as we see that its negation is contradictory. Kant is not saying that a judgment that cannot be negated on pain of contradiction is necessarily an analytic judgment. He is making a comparatively weak epistemic claim: he is saying that for a certain class of true judgments, knowledge of truth runs just through a grasp of conceptual content. In this sense, the issue of contradiction

[99] This example comes from Mark Siebel ("It Falls Somewhat Short of Logical Precision": Bolzano on Kant's Definition of Analyticity", p. 114).

dovetails neatly with the epistemic issue raised above. It brings us to back to the question of how knowledge of conceptual content could possibility sufficient for knowledge of truth. In Chapter Four, it will be necessary to see if Kant has an answer to this question.

Clarification

The main concern that arises in connection with the clarification criterion can be glossed quite succinctly. In short, if we follow Kant in insisting that a judgment qualifies as analytic only if it succeeds in clarifying its subject concept, then analyticity comes to a look like a transient property of particular acts of judgment. The judgment 'bodies are extended' will qualify for me as analytic if I am not antecedently aware that bodies are extended; but a verbally identical judgment performed subsequently will fail to qualify as analytic, since it will simply reiterate what I already know about bodies. One way to defuse this concern might be to embrace a less subjective understanding of clarification. We could say that a judgment is 'potentially clarificatory' when a person could conceivably learn something on the basis of that judgment. The property of being potentially clarificatory, in turn, could be identified with the property of being implicitly identical. Since the subject and predicate concepts in an implicitly identical judgment bear no outward mark of their underlying identity, it is reasonable that such a judgment might prove enlightening to a person not already acquainted with the subject concept at the level of exact content.

Already Thought

Kant's apparently psychological criterion for analyticity, the criterion that defines a judgment as analytic when its predicate concept is 'already thought' in its subject concept,

has given rise to a number of concerns as regards its actual epistemic utility. According to Moltke S. Gram, for instance, this criterion is all but useless as a means of distinguishing between analytic and synthetic judgments: a judgment might *seem* synthetic to me, in the sense that I do not think the predicate concept in the subject concept; but this is consistent with the same judgment *being* analytic, because it does not foreclose the possibility that the subject and predicates concepts are *actually* identical..[100]

Lewis White Beck raises a related problem when he notes that the set of judgments that qualify as analytic according to Kant's psychological criterion (which Beck calls his 'phenomenological' criterion) is not plausibly identical with the set of judgments that qualify as analytic according to Kant's apparently logical criteria for analyticity (containment and identity). One crucial area of non-identity, he indicates, is made up by analytic judgments that take as their predicate concept an 'analytic attribute' of the subject concept. Since analytic attributes are derivable from the "primitive and constitutive marks" of a given concept, according to Kant (9:61), the judgments that draw out these attributes will qualify as analytic according to the logical criteria of containment and contradiction.[101] But since we do not plausibly 'think' these attributes each and every time we reflect on the concepts that logically entail them, the same judgments will not qualify as analytic according to the psychological criterion.[102] Contrary to Kant's

[100] Moltke S. Gram, "The Crisis of Syntheticity", pp. 156-7.
[101] Beck maintains that the contradiction criterion is sufficient for analyticity. As we will see below, there is reason to be skeptical as regards that claim.
[102] Lewis White Beck, "Can Kant's Synthetic Judgments Be Made Analytic?", p. 170; Lewis White Beck, "Analytic and Synthetic Judgments Before Kant", p. 97.

mistaken assumption that "what was analytic by one would be analytic by the other",[103] it looks as if the psychological criterion is narrower in scope than the logical criterion.[104]

Conclusion

Let's sum up what we have seen in this chapter. In Section 1, I tried to construct a basic picture of analytic judgment. As regards 'quality', I found that analytic judgments are either affirmative or negative. The fact that there exists no third qualitative determination reflects a more general logical constraint on subject-predicate judgments: according to Kant, a subject-predicate judgment can only affirm or deny the inclusion of one concept in the sphere of another concept. Next, I found that analytic judgments are necessarily true: where they express false propositions, they are nevertheless convertible into true statements. In terms of logical form, I found that while it is unclear whether an analytic judgment *must* be a subject-predicate judgment, there is some reason to think that this requirement might be defensible, since Kant attributes distinctive formal and modal properties to subject-predicate judgments. I found that Kant's well-known containment criterion, according to which a judgment is analytic when the predicate concept is 'contained' in the subject concept is best understood in logical, rather than psychological terms. Thus, we should not read Kant as saying that a judgment is analytic when the predicate concept is contained in the *thought* of the subject concept, but that a judgment

[103] Lewis White Beck, "Lovejoy as a Critic of Kant", p. 480.
[104] James Van Cleve raises a related point when he notes that the psychological criterion for analyticity fails to capture the logically equivalent, contrapositive counterparts of judgments that qualify as analytic according to the psychological criterion itself. Thus, 'ABCD is A' is analytic by the psychological criterion; but its contrapositive counterpart, 'a non-A is non-ABCD', fails to qualify as analytic according to the psychological criterion. Obviously one can "think of something as non-A without taking any thought of B, C, or D" (*Problems from Kant*, p. 19).

is analytic when the predicate concept is contained in the subject concept *as such*, meaning the subject concept considered as a intersubjectively accessible object. As a corollary, I noted that that the containment criterion presupposes a crucial fact about concepts, namely, that there actually are concepts that contain other concepts as constituents. In terms of Kant's identity criterion for analyticity, I suggested that this criterion is reducible to the containment criterion: a judgment is identical *tout court* just in case everything that is contained in the predicate concept is also contained in the subject concept. What the talk about 'explicit' and 'implicit' identity contributes is the idea that facts about containment can be variously transparent and obscure at the level of linguistic form. Moving on to Kant's more general criterion for analyticity, contradiction, I found that this criterion, too, is oriented toward conceptual rather than linguistic form. When Kant says that a judgment is analytic just in case its negation is contradictory, he presupposes that we have insight into the complex concept with which the subject term is correlated. To deny this is to say, in effect, that only trivial judgments like 'man is man' are graspable as analytic, since it is only such trivial judgment whose negations can be recognized as contradictory at the level of linguistic form. As for apriority, I suggested that this should be understood just in terms of strict universality and necessity. I argued that the widespread epistemological acceptation of this term, according to which a judgment is a priori when it is knowable 'prior to' experience, reflects a logically independent claim concerning empirical intuition—namely, that empirical intuition cannot ground universal, absolutely binding principles. On the other hand, I admitted that analyticity does seem to be associated with an epistemological condition for Kant. He indicates that an analytic judgment will only qualify as such to the extent that it succeeds

in rendering its subject concept distinct. Finally, as regards the psychological criteria for analyticity, I found that an analytic judgment is necessarily such that the predicate concept is thought in the subject concept. Since this seems imply, however, that analytic judgments cannot conceivably render their subject concepts distinct, I added that for Kant, the predicate concept of an analytic judgment might be thought quite 'obscurely' in the subject concept.

In Section 2, I considered the slightly narrower challenges that can be raised in connection with Kant's doctrine of analyticity. First, I noted that the idea of negative analytic judgment involves an epistemic condition that seems, on its face, somewhat difficult to satisfy. Since Kant understands negative analytic judgments not just in terms of exclusion ('bodies are not feelings') but opposition ('bodies are not simple') it turns out that grasping a negative analytic judgment as such presupposes a priori insight into what our words *necessarily do not mean*. Next, we encountered a more tenuous epistemic assumption embedded in Kant's theory. We observed that Kant's theory presupposes, or seems to presuppose, that our knowledge of meanings and synonymy relations is sufficient for knowledge of truth. In other words, his theory assumes that if I know that 'body' means extended thing, then I know, ipso facto, that the judgment 'bodies are extended things' is true. Nor is this the only presupposition that Kant appears to make with respect to truth. Kant seems to assume analytic judgments simply *are* true by virtue of the relationship between their subject and predicate concepts. Echoing Harman and Boghossian, I noted that this conflicts with our basic intuitions about truth, which suggest that a judgment is true when it corresponds in a particular way with a particular set of judgment-external facts.

Further issues arose in connection with the assumption that enables 'implicitly identical' judgments like 'bodies are extended' to qualify as analytic: namely, the assumption that a concept can be said to 'contain' other concepts. For one, it is not clear that the idea of containment can be cashed out in non-metaphorical terms. Second, and more fundamentally, it is not clear why we should even treat concepts as 'containers' to begin with.

As for explicitly identical judgments, I noted that these judgments occupy a somewhat ambiguous position vis-à-vis analyticity. In his early work, Kant suggests that judgments like 'man is man' are analytic. In his later work, however, Kant denies that such judgments are analytic, seeming thereby to reiterate the epistemological requirement that an analytic judgment should succeed in clarifying its subject concept. To resist casting Kant's position in exaggeratedly psychological terms, I suggested that he might require just that a judgment be 'potentially' clarificatory. Thus, he would not be committed to the extremely relativistic claim that a judgment qualifies as analytic *when* it clarifies its subject concept; he could say that a judgment is analytic if it could *potentially* clarify its subject concept. Unfortunately, it is not as clear how the other, apparently psychological characterization of analyticity can be rendered unproblematic. Drawing on Gram and Beck, I noted that the requirement that the predicate concept in an analytic judgment be 'already thought' in the subject concept is inconsistent with Kant's logical criteria for analyticity, since the logical criteria will take in predicates that are not obviously thought in the subject concept.

Chapter Three

Two Questions About Concepts

Temporarily setting aside the many difficult issues that arise from Kant's formulation of analytic judgment, what I want to do in this chapter is to consider a pair of concerns that are at the same time more basic and more potentially worrying. My expectation is that if we are able to understand how Kant might respond to these concerns, it will be possible to understand how he might respond to the issues raised in Chapter 2. In Section 1, I take up the first of these concerns. I ask how Kant might respond to the charge that 'analytic' and 'synthetic' are ultimately relative designations, because different people will associate different content with a given term. Extrapolating from a remark by Johann Schulz, I respond by showing that conceptual intension is not freely variable, but is determined by the distinguishing features of an objective correlate. To Desmond Hogan's concern that Kant cannot coherently insist on this external standard, because to do so is to introduce a synthetic element into ostensibly analytic judgments, I respond by arguing that the relation between a concept and its objective correlate is in some cases established a priori, meaning that the problem to which Hogan directs our attention does not arise in all cases. In Section 2, I consider another concern, one that arises around empirical concepts in particular. Against Kant's expectation that a natural substance will be associated with one concept and one concept alone, I suggest that his reasoning is compatible with the claim that natural substances are associated with a *succession* of concepts. Since this would mean that a judgment like 'gold is a yellow metal' might be analytic at one moment and non-analytic at the next, I ask whether Kant has some means of ruling out this form of conceptual variation. I suggest that the Kantian response is to insist on a limit on the

extent to which empirical concepts can vary. I suggest that an empirical concept, for Kant, is necessarily constituted in terms of predicates derived from our first-person, sensory encounter with objects, meaning that it is at least plausible that for any given natural substance, there is only one set of legitimate, distinguishing predicates. After noting that this response does not entirely succeed as a response to the problem at hand, I suggest in Section 3 that it nevertheless suggests an important general principle about concepts: namely, it suggests that any concept whatsoever for Kant is related to a single source of representational content. I conclude by showing that this principle sheds valuable light on the analytic-synthetic distinction.

1. Objective Reality and Adequacy

In the last chapter, I considered two problems that arise from Kant's apparently psychological criterion for analyticity. According to Gram, this criterion fails to provide meaningful access to facts about analyticity: provided just that I fail to 'think' a particular predicate concept in conjunction with a particular subject concept, then I will fail to recognize the judgment that conjoins those concepts as analytic. According to Beck, meanwhile, this criterion is simply too narrow: it fails to pick out analytic judgments having an analytic 'attribute' in the predicate position. Here, I want to consider a more naïve and more far-reaching objection that has been raised in connection with Kant's psychological criterion. According to J.G. Maaß, an early opponent of the critical philosophy, Kant's psychological criterion makes the analytic-distinction relative to the particular acts of judgments of particular individuals: a judgment will qualify as analytic for me if I happen to associate the predicate concept with the subject term, but it will qualify for someone else as synthetic, provided that they do not associate the predicate

concept with the subject term.[105] In a response to Maaß penned at Kant's behest, Johann Schulz concedes the superficial cogency of Maaß's objection. He admits that the question of whether a given judgment is analytic or synthetic might be answered differently by different people, depending on the content that they happen to associate with a given term. But Schulz denies that this fact is dispositive. He suggests that where the analytic-synthetic distinction is concerned, the question of conceptual intension is not to be settled by asking what content this or that individual associates with a given term, but by asking what "*should be* thought under the subject as well as the predicate". Thus, a person who happens to associate the predicate heaviness with the concept *gold* is not simply entitled, without further ado, to call the judgment 'gold is heavy' analytic. They are obliged to show that the concept *gold* actually does contain the predicate in question. Schulz gives us some sense of what such a demonstration might involve:

> First prove the objective reality of your concept, i.e. first prove that any one of its marks really belongs to a possible object, and then, when you have done that, prove that the other marks belong to the same thing that the first one belongs to without themselves belonging to the first mark.[106]

Schulz then goes on to suggest that this second requirement belongs to a more general law of conceptual economy, to the effect that one should "not introduce more marks into a definition than are necessary for the distinction of the defined thing from all others".

It is easy to see how this second requirement, which appears in Kant's work under the heading of 'adequacy',[107] can help us to resolve the problem at hand. In order to

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[105] Henry Allison, *The Kant-Eberhard Controversy*, p. 175; cf. Bolzano, *Theory of Science*, p. 197 (sec. 148).
[106] Cited in: Henry Allison, *The Kant-Eberhard Controversy*, p. 175.
[107] According to Kant, a definition is adequate to its definitum when it is sufficient for the "distinction of the definitum from all other things" as well as the "cognition of its identity with other things" (24:265, 24:913). Adequacy, in turn, is a function of exhaustiveness (completudo) and precision (Abegemessenheit). A definition must contain enough

explain why the concept *gold* contains the *yellowness* and *metallicity* as constituents but not *heaviness*, all that I need to show is that heaviness is redundant from the standpoint of distinguishing gold. Since, by identifying all of the yellow metallic things, I will already have identified all of the gold, my concept simply does not *need* heaviness as a constituent.

Unfortunately, even if we allow that adequacy is a reasonable constraint on concept formation, and that gold is indeed distinguished from all other things on the basis of its yellowness and metallicity, our solution creates a new difficulty. In order to see this, suppose that some new substance is discovered that is identical to gold expect in regards to its weight. Whereas gold is heavy, this newly discovered substance is light. Evidently, we are obliged to amend our concept of gold. Having previously counted heaviness as a non-conceptual, synthetic predicate, we now need to count it as a conceptual predicate. And this in turn means that we need to count 'gold is heavy' as an analytic judgment, even though to do so is to acknowledge that analytic judgments are not absolutely a priori, as Kant requires. Kant could perhaps push back here by arguing that the taxonomy of natural substances is fixed, meaning that we will never in fact discover a new, gold-like substance, and that we will never be obliged to amend our definition of gold. But such a claim obviously transcends the boundaries of anything that is warrantedly assertable by Kant's standards.

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predicates so as to reliably distinguish the objects that are the target of the definition; but it must not contain so many predicates as to capture only a subset of those objects. Thus, the definition 'bodies are extended' is not exhaustive, because it fails to distinguish bodies from empty space; and 'bodies are extended, heavy things' is imprecise, because it narrows the extension of body to just those "bodies with which we are acquainted" (24:924).

Considerations such as these inform Desmond Hogan's sense of what Schulz is up to in the passage cited above. According to Hogan, Schulz is not actually proposing a criterion that the conceptual constituents of analytic judgments must satisfy; he is performing a reductio ad absurdum on the view that any synthetic predicate whatsoever can be *made* analytic. He is saying that if I propose to make some synthetic predicate into an analytic predicate, it is not enough to simply lay this down definitionally, or to gesture to the internal consistency of the resulting concept. Rather, I need to show that the resulting concept is applicable to the same "feature of reality" as the initial, narrower concept. I need to show that the concept that I now associate with the word 'gold' picks out the same thing that the concept I previously associated with the word 'gold' picks out. But this sort of demonstration, Hogan notes, is "irreducibly synthetic".[108] It ensures that my would-be analytic predicate cannot actually be made into an analytic predicate after all.

My understanding of what Schulz is doing is somewhat different. In the first place, I don't think that Schulz's rhetorical strategy is quite as Hogan characterizes it. As I read him, Schulz does not invoke the requirements of objective reality and adequacy as a way of showing that any claim on behalf of a 'new' analytic predicate involves an "irreducibly synthetic" process. Rather, as Schulz's entirely non-ironic presentation suggests, I think that he genuinely believes that a concept should be objectively real and adequate. His assumption seems to be that if concepts are only loosely tethered to objects, then they cannot meaningfully serve as the bases for analytic judgments.

[108] Desmond Hogan, "Metaphysical Motives of Kant's Analytic-Synthetic Distinction", p. 278.

Perhaps Hogan would say that to read Schulz in this way is to make his position indefensible, because it would mean that for Schulz, the subject concept of any analytic judgment must be subjected to an "irreducibly synthetic" process. To this my response is that demonstrating the objective reality or the adequacy of a concept need not be an irreducibly synthetic process.[109] In order to see this, let's look more closely at the idea of objective reality.

For Kant, as for Schulz, objective reality is that property in virtue of which a concept is related to an object of possible experience. Thus, in the *Critique*, Kant remarks that "if a cognition is to have objective reality, i.e. to be related to an object, and is to have significance and sense in that object, the object must be *able to be* given in some way" (A155/B194-5, my emphasis); and in his *Preisschrift* essay, he explains that a concept has objective reality when "a corresponding object *can* be given in experience" (20:266, my emphasis).

How do we show that the objective correlate of an empirical concept like *gold* can be given in experience? According to Kant, this is a matter of testifying to an *actual* instance of the concept. He notes that deduction is not necessary in the case of empirical concepts, because "we always have experience ready at hand to prove their objective reality" (A84/B117). Elsewhere, he strongly implies that in the case of empirical

[109] This is contrary to a line of interpretation that is prominently represented in the secondary literature. According to Henry Allison, "to claim that a concept has objective reality is to claim that it refers or is applicable to an actual object" (*Kant's Transcendental Idealism*, p. 135). Likewise, for Paul Guyer, a representation has objective reality when it has an "actual object" (*Kant*, p. 376).

concepts, the corresponding "object and its possibility" are given on the basis of the object itself and not through an a priori mechanism such as definition (A729/B757).[110]

The case of geometrical concepts is similar. Showing that a geometrical concept has objective reality, according to Kant, is a matter of "exhibiting an object corresponding to this concept" (A713/B741, 4:287-8). The difference lies just in what this exhibiting is supposed to show. By showing that *gold* has objective reality, what we show, according to Kant, is that gold agrees with the *empirical* conditions of possible experience. By showing that *triangle* has objective reality, on the other hand, what we show is that the triangle agrees with the *a priori* conditions of possible experience.

The case of the pure concepts of the understanding, meanwhile, is quite different. As Aaron Bunch has argued, what Kant is trying to do in the Transcendental Deduction is to provide an a priori demonstration of the objective reality of concepts like *substance* and *cause*. Instead of justifying such concepts by showing that that they pick out an objective correlate *in fact*, he proposes to justify them by showing that they represent necessary conditions of possibility for the representation of their objective correlates—meaning that a substance, for example, simply could not be given unless I already possessed the concept *substance*. The cost of failure in this regard, Bunch indicates, would be to trap the project of the first *Critique* in a vicious circle:

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[110] Kant's example here is the concept *chronometer*. As Guyer and Wood explain in their edition of the first *Critique*, the chronometer was a measuring device that was first proposed in the early eighteenth century, but that was not actually realized until 1773 (p.752). As such, it furnishes a helpful illustration of the relationship between definition and possibility in the case of empirical concepts. In the case of the chronometer, definition alone could act only as an indication of what the object *would be* if it were possible; demonstration of the actual possibility of the chronometer had to await the production of a real chronometer.

> The Critical project of a priori legitimation must precede the application of the concepts it legitimates. But it cannot do so if part of the legitimation process (establishing the objective reality of the relevant concepts) must apply the very concepts in question in order to establish the actuality of their objects…[111]

What about the second requirement that Schulz introduces, that of adequacy? Is it possible to show that the pure concepts of the understanding distinguish their objects adequately without subjecting those objects to an essentially empirical form of scrutiny? Indeed, I think that the adequacy of the pure concepts of the understanding follows trivially from the *idea* of the pure concepts of the understanding. Since the role of the pure concepts is to provide a logical architecture for experience that can be 'fleshed out' in different ways by pure and empirical intuition, the pure concepts necessarily provide *just enough and not too much* representational content. The concept *substance* furnishes us with the basic logical determinations of any substance whatsoever; but on pain of dictating precisely which substances can be given in experience, it does not furnish us with anything more than that.

Evidently, therefore, objective reality and adequacy *can* function coherently as criteria for concept-hood. Contrary to Hogan, it is not the case that to impose these criteria on the conceptual constituents on analytic judgments is to guarantee that those judgments will no longer qualify as analytic. At the same time, it is easy to see *why* Kant might want to impose these criteria on the conceptual constituents of analytic judgments. This ensures that analytic judgment cannot be a process wherein we unpack fanciful, arbitrary, or otherwise spurious concepts. It ensures that an analytic judgment will target

[111] Aaron Bunch, "'Objective Validity and Objective Reality in Kant's B-Deduction of the Categories", p. 77; cf. Michael Friedman, "*Matter and Motion in the* Metaphysical Foundations *and the First* Critique", pp. 58-61.

a concept that corresponds to a real object, meaning that an analytic judgment will actually tell us something—however trivial—about the world as given.

Finally, therefore, we can conclude that the conceptual constituents of analytic judgments—along with all other concepts whatsoever—are subject to the criteria of objective reality and adequacy. These criteria are probably more restrictive than Schulz suspects, because it looks as if it will be hard to satisfy these criteria coherently in the case of empirical and geometrical concepts; but if the Transcendental Deduction is successful, then they are not *impossible* to satisfy coherently, as Hogan assumes.

2. Concept Change

At this point, I want to consider another way in which empirical concepts create difficulty in the context of analytic judgment. The difficulty resides in the fact that there is no apparent necessity to the association between a particular natural substance and a particular empirical concept. Whereas we know why the pure concept *cause* must be constituted in the way that it is—because its being constituted in the way that it is represents a necessary condition for our experience of causation—it is less clear why the concept *water* must be constituted in the way that is. Even supposing that our concept of water must be perfectly adequate, we might think that we could define water adequately as a fluid body, as the substance found in lakes and rivers, or as H^2O. Indeed, we might think that this kind of definitional variation is what *actually happens*, both within and without the natural sciences: whether prompted by some theoretical innovation or for no particular reason at all, it looks as if we periodically and collectively embrace a new concept of a given substance.

How might Kant respond here? Drawing on the first chapter, it looks as if he would respond by insisting on the fixity of our initial, designative concept of water. He would say that in the natural sciences, we lay down an initial definition and do not subsequently revise it, because to do so would be to derail our investigation of the corresponding substance. But this response by itself fails to convince. Arguably, the theoretical objectives that are satisfied by an initial, designative concept can be served just as well by a succession of designative concepts. Provided just that we agree, at any given moment, on the properties that are constitutive of water, then there is no reason to worry that that water will be inadequately 'designated', or that there will be no basis for synthetic predication with respect to water, or that misunderstanding will ensue when someone utters the word 'water'.

As for why this might be a matter of concern, it is because it imperils the possibility of empirical analytic judgment. Supposing we cannot show that 'water' *must* be defined as a fluid body, as Kant suggests,[112] then there is no way of showing that the judgment 'water is a fluid body' is genuinely analytic. We could admit that 'water is fluid body' had the status of a *conceptual* judgment for Kant and his contemporaries; but we would be unable to concede that 'water is the fluid' had the status of an *analytic* judgment for Kant and his contemporaries. This judgment simply could *never have been* absolutely a priori.

Given, then, that Kant himself defines water as a fluid body,[113] let's see if he has some way of defending the uniqueness of this conception. One way of answering this will be to see if he has some way of ruling out the rival definitions that I suggested above:

[112] This definition comes from the *Vienna Logic* (24:914).
[113] This definition comes from the *Vienna Logic* (24:914).

'water is H^2O' and 'water is the substance found in lakes and rivers'. A fruitful strategy for ruling out the first alternative is suggested by Robert Hanna's defense of Kant against the 'scientific essentialism' of Saul Kripke. Contrary to Kripke's assumption that Kant was simply mistaken in his identification of 'gold is a yellow metal' as analytic, and that exposing Kant's mistake in this regard is as easy as invoking the 'genuinely' essential attributes of gold—namely, the chemical properties that are encapsulated in its atomic number—Hanna shows that Kant's position grows out of a defensible natural scientific epistemology. For Kant, natural substances are simply not accessible to us on the basis of a supposed 'real essence', which is to say, an essence that would transcend the framework of our specifically human, specifically sensory encounter with those substances. To the extent that such substances are cognizable, they are cognizable just on the basis of the macrophysical properties that are actually given in our experience of those substances, thus, in the case of gold, on the basis of its yellowness and metallicity.[114]

Without trying to adjudicate between Kripke and Kant on this issue, it will at least be clear on what grounds the latter can eliminate 'water is H^2O' from contention as a definition of 'water'. Even supposing that water is constituted by its underlying chemical properties, and even supposing that those chemical properties are captured by the formula in question,[115] there is no prospect of our experiencing water in terms of those chemical

[114] Robert Hanna, "A Kantian Critique of Scientific Essentialism", pp. 512-515.
[115] Hanna notes that the scientific essentialists do nothing to rule out the scenario in which gold turns out to have a deeper, more fundamental 'micro-microstructure' than the one that is captured in the definition 'gold is the element with the atomic number 79'. This in turn means that the essentialists are susceptible to the same attack that they direct towards Kant. Just as the essentialists can argue that yellowness and metallicity are inessential to gold, because there is a possible world in which the element with the atomic number 79 does not show up as yellow or metallic, the essentialist's opponent can argue that gold's being the element with the atomic number 79 is inessential to gold, because

properties, and so no basis for incorporating those properties into our definition. The function of a definition, for Kant, is not just to individuate the object of the definition, but to individuate that object within the framework of human sensory experience.

The case of our second candidate definition, 'water is the substance found in lakes and rivers', is slightly more difficult. Unlike the property H^2O, the property of being found in lakes and rivers cannot be eliminated on the basis of its inaccessibility from the standpoint of sensory experience. The attribution of this property to water seems to arise precisely out of our sensory encounter with water. On the other hand, perhaps this property is *too far removed* from immediate sensory experience to qualify as a genuine predicate of water. Whereas the properties of yellowness and metallicity are plausibly given at the level of first-person sensory experience, the property of being found in lakes and rivers has no immediate sensory correlate. It is an abstraction that is formed on the basis of extended collective experience, and that presupposes the intelligibility of two constituent abstractions (lake, river).

What reason do we have to think that these considerations are decisive from Kant's standpoint? Initial anecdotal evidence on this score comes from the way in which Kant tends to define empirical concepts. With some exceptions, he defines empirical concepts in terms of predicates that are plausibly accessible on the basis of first-personal

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there is a possible world in the micro-microstructurally characterized substance is not the element with the atomic number 79 ("A Kantian Critique of Scientific Essentialism", pp. 521-523). Approaching the same basic point from a different direction, Noam Chomsky notes that a definition of water as H^2O may actually be too coarse-grained to qualify as genuinely essential, given what we are coming to understand about the complexities of water (*Science of Language*, p. 156, cf. Hilary Putnam, "The Development of Externalist Semantics", p. 198).

sensory experience.[116] A more principled reason for thinking that there could not be a concept of water constituted by abstract, non-first-personal predicates emerges from the requirements that Kant imposes on concepts in general.

Above, we saw that a concept is a candidate for analysis only if it is related to an object of possible experience; and we saw that this relation can be established either a priori or aposteriori. The concept *substance* is related a priori to its objects in the sense that it makes possible the experience of substance; and the concept *gold* is related aposteriori to its objects in the sense that it arises from the actual experience of gold. What we want to do now is examine the idea of a relation to objects in more depth. In what does such a relation actually consist? According to Kant, it consists first and foremost in a relation to "empirical intuitions, i.e. to *data* for possible experience" (A239/B298). Because a mode of intuition which would actually 'produce' its own objects is impossible for us (B145), and because pure, a priori intuition can only impose form on objects that are antecedently given, the possibility of a relation between concept and object presupposes that a specifically empirical intuition be "given to" the concept. Evidently, though, this does not explain how the intuition itself comes to be related to the object. According to Kant, an empirical intuition is related to its object by means of 'sensation' (A20/B34, cf. B147, 9:92), which is in turn defined as the "effect of an object on the capacity for representation, insofar as we are affected by it" (A20/B34), and elsewhere as a "perception that refers to the subject as a modification of its state" (A320/B376, cf. A374). There is probably no need to parse these definitions in detail.

[116] Exceptions to this rule include concepts that arise in the context of Kant's natural scientific writings, such as *attractive force*. According to Kant, an attractive force "is that moving force by which a matter can be the cause of the approach of others to it" (4:498).

Evidently, what Kant means is that a concept is related to an object just insofar as the latter is given at the level of the individual, embodied subject.[117] The concept *substance* is related to an object insofar as I can encounter and be affected by substances; and the concept *gold* is related to gold insofar as the latter can be given within the framework of my individual, spatio-temporal experience.

So far, then, our hypothesis has been rendered plausible. According to Kant's basic assumptions, the concept *water* as constituted by the predicate *being found in rivers and lakes* cannot relate to an object, because the corresponding property cannot be given at the level of first person, embodied experience. While the fluidity of water is a clear and uncontroversial element in my first-hand experience of water, it is hard to see how the presence of water in lakes and rivers could enter into my first-hand experience at all. Ideally, we would reinforce this conclusion by appealing to some explicit statement from Kant himself. Unfortunately, to the best of my knowledge, Kant does not spell out the kinds of properties that can be given at the level of sensory experience. While we can perhaps assume that the range of legitimate sensible predicates coincides with the

[117] The second definition is perhaps slanted too heavily in the direction of individual subjectivity. In saying that a sensation "refers to the subject as a modification of its state", Kant can be understood as saying that a sensation is never the kind of thing that can be attributed to the object that is the occasion for the sensation itself. Thus, sensations would all be at the level of warmth, namely, in being 'modifications' of my state that "do not in themselves allow any object to be cognized" (A29/B44. cf. A376). As Beatrice Longuenesse points out, however, Kant does not consistently confine sensation within these parameters: "according to the Transcendental Analytic, sensation is certainly related to objects, since we know the degree (intensive magnitude) of qualities in objects by means of the degree of sensation" (*Kant and the Capacity to Judge*, p. 192). And in the *Critique of Judgment*, Kant himself makes it clear that the "way in the subject is affected" by a given object can be "carried over to the object" itself (20:221).

secondary qualities recognized by the empiricists, Kant does not actually delineate the bounds of sensation.[118]

This offers us a principled reason to think that 'water is a fluid body' cannot be supplanted by 'water is H^2O' or 'water is the substance found in lakes and rivers' as a definition of water. As it turns out, neither of the proposed alternatives are appropriately scaled. 'Water is H^2O' attributes a predicate to water that is 'too small' to be experienced at the level of individual sensory experience; and 'water is the substance found in lakes and rivers' is 'too big' by the same yardstick.

Ultimately, though, I do not think that this takes us past the goal line. It does not demonstrate that 'water' has the meaning that it has as a matter of strict necessity. Because even if we allow that the concept associated with 'water' must be perfectly adequate, and that it must be scaled to the dimensions of human sensibility, we have not yet eliminated the possibility of multiple appropriately scaled concepts. We have not yet shown that there could not be *another* entirely adequately concept of water made up exclusively of first-person predicates. Nor is really clear that this could be shown. While it is perhaps intuitive that a natural substance will admit of just one adequate definition, it is hard to see how this could actually be demonstrated. We would simply never reach a point at which we could declare that all possible alternatives had been exhausted.

What therefore can we retain from this? Evidently, we cannot lay claim at this point to a satisfying response to our most recent concern. Even having set aside the

[118] The closest that he comes, perhaps, is in identifying "sight, hearing, and feeling" as the source of the corresponding 'sensations' of color, sound, and warmth (A29/B45). Also suggestive is Kant's identification of color in particular as a 'modification' of the sense of sight (A28/B44). Since a sensation is defined generically as a modification that is produced in the subject (A320/B376), we may read this second remark as suggesting that such modifications occur at the level of the sensory organs.

problems associated with adequacy, and even having granted the claim that empirical concepts must be scaled to the dimensions of human sensibility, we were unable to show there can only be a single concept of gold or water. On the other hand, just as our discussion of adequacy enables us to draw out an important principle concerning the conceptual constituents of analytic judgments, namely, that such concepts are subject to the criteria of objective reality and adequacy, our most recent discussion has enabled us to make clear an important claim concerning empirical concepts. What we have found is that a legitimate empirical concept has what content it has by virtue of sensory experience. Rather than a repository for whatever predicates we might happen to think in connection with the corresponding substance, an empirical concept is a repository for predicates harvested on the basis of empirical intuition. These predicates alone constitute the analytic core of the concept.

This in turn suggests a more general claim, to the effect that any concept whatsoever has what content it has by virtue of a particular source of cognition. A concept is not just any assortment of mutually consistent and non-redundant predicates. It is an assortment of mutually consistent and non-redundant predicates that originate either with empirical intuition, pure intuition, the understanding, or with reason. Before moving on the next chapter, I will try in the next section to flesh out and to justify this claim.

3. The Nature of Concepts

So far, we have encountered two basic constraints on the range of concepts that can enter into analytic judgments. We have seen that the subject concept in an analytic judgment must have objective reality and that such concepts must be adequate. Here, I want to

make the case for a constraint that impinges on concepts in general: the requirement that a concept be directly related to a particular source of cognition.

The case for empirical concepts has just been made above. We have seen that there cannot be a concept of water that escapes characterization in terms of human sensibility, and hence, that an empirical concept should be understood as an aggregate formed from specifically sensible predicates. By way of a minor qualification to this rule, it is worth noting that empirical concepts can contain predicates that do not actually *originate* with sensibility. Thus, the concept *water* contains the concept *body* as a constituent; and *body* originates with the understanding rather than empirical intuition. What is salient in this context, however, is that *body* is indeed instantiated at the level of sensible experience. Unlike, say, *absolute possibility*, which does not enter into our sensible experience in any form (A323/B285), the concept *body* is directly given in our experience, in the form, namely, of any discrete segment of the spatial manifold. There exists a clear 'empirical criterion' for recognizing when a body is given.[119]

As for mathematical concepts, here we initially confront a puzzle. Since concepts like *octagon* are not abstracted from sensible experience, or given to us a priori through the nature of the understanding, it is not clear that they correspond to any source of representational content whatsoever. Being 'arbitrary' constructions, it might look as if

[119] Insofar as an empirical concept purports to represent a certain kind of property-bearing object, it is arguable that the concept will *necessarily* include predicates originating with the understanding, because it is only by virtue of the understanding that we are able to represent empirical reality in terms of property-bearing substances. Bolzano makes this point in a non-Kantian context. He says that "in order....to compound an idea out of mere ideas of its properties, *b*, *b′*, *b″*..., it is still requisite that there be some other ideas as well, which serve to connect them. In order to represent the object that has the properties *b*, *b′*, *b″*...in itself, one must form the idea "of *a something* which has (the properties) *b*, *b′*, *b″*..." (*Theory of Science*, p. 98, my emphasis).

they emerge just from the mathematician's fancy. In an unpublished note, Kant provides a clue as to how such concepts should be understood. He explains that the mathematician "constructs arbitrary concepts *of magnitudes* as hypothetical conditions, from which consequences ought to be able to be drawn" (17:552, my emphasis, cf. A714/B742). Thus, in geometry, we construct concepts of particular kinds of extended magnitudes as rules for the actual generation of those magnitudes;[120] and in arithmetic, we construct "operations (such as addition, subtraction, and also the extraction of roots) and concepts (above all the concept of ratio) for manipulating any magnitudes there may be".[121] This suggests that concept formation in mathematics is subject to the following general principle: while our concepts (or operations) need not be abstracted *from* the experience of extended magnitudes in space and time, they are necessarily such that they can give rise to extended spatio-temporal magnitudes, or such that they can be applied to already given magnitudes. This in turn suggests that we should think of mathematical concepts not as arbitrary representations, unrelated to any source of representational content whatsoever, but as empirical concepts that, for methodological reasons, are produced a priori. If such concepts were not produced a priori, according to Kant, then they would not have the generality that mathematics demands; but if they could not be empirically instantiated, then they would not have the empirical significance that mathematics presupposes.

Our next pair of concepts, *space* and *time*, likewise present a puzzle, namely, as to whether they are even concepts to begin with. Kant's official position, we might say, is

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[120] Kant identifies the concept of a triangle with its schema, suggesting that the concept itself can be thought of as a rule for the generation of triangles (A718/B746, cf. A164/B205).
[121] Michael Friedman, *Kant and the Exact Sciences*, pp. 113-4 (cf. A717/B745).

that space and time should be understood not as concepts, but as intuitions (B40, A31/B49, B136). This reflects the phenomenological claim that space and time both contain an "infinite set of representations" within themselves (B40, A32/B7) and are in that sense fundamentally distinct from our finite concepts; this also reflects Kant's sense that geometry "determines the properties of space synthetically", and thus presupposes a non-conceptual representation of space (B40-1). But the notion that space and time are not concepts conflicts with what we might call Kant's unofficial position, which is to say, his persistent habit of referring to space and time precisely *as* concepts (B38, B40, A40/B57, A31/B49, A37/B54). According to Charles Parsons, this apparent inconsistency can be made to disappear when we attend more closely to Kant's apparent disavowal of the concept-hood of space. When Kant says that "the original representation of space is an *a priori intuition*, not a concept" (B40), according to Parsons, he is not saying that space is not a concept, but that it is not 'originally' a concept, meaning that the intuition of space is logically prior to the conceptual thematization of the same. If this conceptual thematization is nevertheless necessary and inevitable, Parsons adds, it is because there "must be such a thing as the concept of space, to be a constituent of judgments concerning space".[122] In other words, if the judgment 'space has three dimensions' is to be possible *as a judgment*, then space must be possible as a concept, because only a concept can be part of a judgment (A68/B93). For our purposes, what is most significant is Kant's sense as to where this concept derives its content. According to Kant, the concept cannot get its content just from the particular, empirical effects of space; rather, it must get its content from the representation that is the basis of these

[122] Charles Parsons, *From Kant to Husserl*, p. 14.

empirical effects (A23/B38, cf. A40/B57). "An *a priori* intuition", he explains, "grounds all concepts of [the all-encompassing space]" (A25/B39). Since precisely the same considerations apply to time, we may extend Kant's conclusion, and say that both space and time are derived, qua concepts, exclusively from pure a priori intuition.

Going forward, it becomes slightly easier to show that particular kinds of concepts are related to particular sources of representational content, and indeed, that they cannot admit of any 'impurities' in this regard. Thus, as the name already suggests, the pure concepts of the understanding have their origin "*solely* in the understanding" (A320/B377, my emphasis). Were this otherwise, Kant thinks, then the objectivity of experience would be impossible. If I did not already have the concept *substance* in advance of any experience whatsoever, then it would be impossible for me to experience empirical change in terms of the alteration of a subsisting object (A188/B231). If I did not already have the concept of causation, it would be impossible for me to distinguish between a merely subjective sequence of perceptions and a sequence of perceptions that is grounded in an object (B234).[123] The necessity that characterizes the latter phenomenon cannot be given on the basis of empirical intuition (A112).

Finally, we arrive at those concepts that Kant calls 'transcendental ideas', and which have not so far entered into our discussion, being largely irrelevant from the standpoint of analytic judgment (owing to the fact they have subjective, rather than objective reality (A339/B397), and are not therefore legitimate constituents of analytic

[123] According to Robert Brandom, "Kant's most basic transcendental question does not, as his own characterization of his project suggests, concern the condition of the possibility of synthetic knowledge a priori, but the conditions of the intelligibility of representational objectivity: of states or episodes that answer for their correctness to how it is with the objects they represent" ("Kantian Lessons about Mind, Meaning, and Rationality", p. 2).

judgments). According to Kant, such concepts are decidedly independent of the senses, or empirical intuition, as regards their content (A313/B370). There is simply no question, he thinks, of deriving a concept like *virtue*, or *absolute possibility*, from individual experiences. But the transcendental ideas are equally independent of the understanding as regards their content. Since the understanding is oriented exclusively toward the synthesis of particular, spatio-temporal experiences, and since neither *virtue* nor *absolute possibility* play any role in this regard, Kant concludes that they must originate with a different faculty, having a different function altogether, namely, reason (A338/B396).

With the partial exception of empirical concepts, therefore, it looks as if concepts for Kant are invariably related to particular sources of cognition. A concept, we might say, is an expression of the source of cognition to which it belongs. Relating this now to our central problem, that of analytic judgment, it becomes possible to explain why a synthetic a priori judgment like 'every event has a cause' cannot be an analytic judgment. Against C.I. Lewis, who insists that this judgment is in fact analytic, because he insists that the experience of causation is an essential constituent in our experience of events, and so must be included in the concept *event*, we can reply there *cannot be* a concept that combines the idea of causation alongside the idea of events, because such a concept would include content from two distinct source of cognition.[124] It would include the empirical concept of an event alongside the pure concept of causation and would thus run contrary to the very nature and function of concepts.

Now, someone might object here that Kant has simply misconstrued the nature and function of concepts. Even supposing that for natural scientific purposes, we identify

[124] C.I. Lewis, *An Analysis of Knowledge and Valuation*, p. 162.

substances in terms of their manifest sensible properties, and even supposing that transcendental consciousness embodies a series of synthetic functions that are logically prior to empirical intuition, why should it be the case that our *concepts* actually reflect these facts? Why shouldn't we defer to a more intuitive, phenomenological image of conceptual representation, which would suggest that concepts are highly variable objects, both within and between individuals, and that they are by no means subject to the requirements that Kant imposes on them? The Kantian response, I think, is to say that both images of conceptual representation can be accommodated within a single frame. Thus, Kant admits that different people will associate different predicates with gold; as we saw in the first chapter, however, he insists that this variation is only meaningful *as* variation to the extent that it is set against the backdrop of an intensionally stable concept (A728/B756). Likewise, Kant admits that the idea of right need not always be thought in exactly the same way; from his perspective, however, this does not mean that everyone simply has their own concept of right; it means that "in common and practical use, one is not conscious" of everything that is entailed in *the* concept (A43/B61). Just as I can see the Milky Way without seeing it distinctly, I can think of, and even *use* a given concept without grasping all of its component parts (9:35).

Conclusion

I began this chapter by asking how Kant could defend himself against the critique associated with J.G. Maaß, the critique according to which the analytic-synthetic distinction is relative to the particular acts of judgment of particular individuals. By exploring the response offered by Schulz, which amounts to a sharp restriction on the range of possible intensional variation, it was possible to demonstrate an initial,

extremely important fact about concepts. It was possible to show that the subject concept in an analytic judgment must have objective reality and must be adequate to its object. I acknowledged that these conditions could not be coherently satisfied in the case of empirical or geometrical concepts, because knowing that such concepts have objective reality means attesting to the givenness of an actual objective correlate; but I argued that these conditions could be satisfied coherently in the case of the pure concepts of the understanding, because for these concepts, objective reality is secured a priori.

By way of drawing out another important fact about concepts, I then considered a second problem. I asked whether a natural substance might be associated with a succession of designative concepts, meaning, in effect, that a natural substance could never be the subject of a genuinely analytic judgment. I then presented what I took to be the best Kantian response to this worry. I suggested that for Kant, the range of possible conceptual variation is actually quite narrow. The concept of a natural substance cannot refer to microphysical properties, or to broad, contextual properties; it can only refer to properties attestable at the level of first-person experience. While conceding that this did not ultimately suffice as a response to our concern, because it did nothing to foreclose the possibility of multiple appropriately scaled designative concepts, I suggested that this response was nevertheless quite instructive as regards empirical concepts. It suggested that such concepts get what content they have from empirical intuition exclusively.

Subsequently, I showed that this claim generalizes, and that for Kant, concepts are invariably related to particular sources of representational content. I suggested that if we bear this principle in mind, it becomes possible to explain why an analytic judgment is necessarily analytic, and why a synthetic a priori judgment is necessarily synthetic. From

Kant's perspective, a judgment is analytic when it involves conceptual content originating from the understanding alone, and a judgment is synthetic a priori when it involves conceptual content originating from the understanding *and* from sensibility. To say that a judgment like 'every event has a cause' could somehow *become* analytic, therefore, is not just to say that the concept *event* could come to envelop the concept of causation; it is to say that this concept could somehow cease to be an empirical concept and become, like the concept of causation, a pure concept of the understanding. Even without remarking that for Kant, rational cognition is intrinsically non-temporal in nature, and so cannot be the basis for temporal concepts like *event*, the thought that a concept could somehow *become* a pure concept of the understanding is already sufficiently outlandish to discredit the proposed scenario. We are obliged to conclude that the boundary between the analytic and synthetic is not arbitrarily drawn, but reflects deep facts about human cognition.

Chapter 4

A Kantian Defense of Analytic Judgment

In this chapter, I consider the 'internal problems' brought to light in the second chapter. Drawing on the understanding of concepts developed in the previous chapter—and in particular, on the understanding that the conceptual constituents in analytic judgment necessarily have a priori objective reality—I show that these problems can largely be resolved, meaning that it is possible to construct a coherent Kantian theory of analytic judgment.

Section 1 of this chapter deals with the question of how we can know that a grammatically negative judgment is analytic. Section 2 considers the question of truth from both an epistemic and metaphysical angle. I ask how we can know that any analytic judgment whatsoever is true; and I ask how any judgment whatsoever can *be* true just by virtue of conceptual content. I show that both of these questions are to be answered by stressing the a priori relation between concept and object. Section 3 takes up the difficult issue of analytic judgment and logical form. I consider the different ways in which Bolzano, Frege, and Katz each try to sever the link between analyticity and subject-predicate form and I show that none of these strategies has any prospect for success in a Kantian context. Section 4 attempts to shed light on the meaning of containment. I ask whether it is possible to clarify this notion in a way that preserves the necessity of containment relations. In Section 5, I tackle Kant's identity-criterion for analyticity and his clarification-criterion simultaneously. I show that the exclusion of explicitly identical judgments from the class of possible analytic judgments can be justified without reference to the clarificatory value of such judgments, and thus, that the clarification

criterion has no real work to do. I conclude, in Section 6, by considering the criterion which states than an analytic judgment is a judgment in which the predicate concept is 'already thought' in the subject concept. I show that this criterion does not really impose a psychological condition on what it means to be an analytic judgment as it appears to do.

1. Negative Analytic Knowledge

In the Chapter Two, I noted that the category of negative analytic judgments is subject to a particularly high epistemic standard. While we can describe the affirmative judgment 'all bodies are extended' as analytic just insofar as we know what is necessarily entailed in the concept *body*, we can describe the negative judgment 'no body is simple' as analytic only insofar as we know what the concept body *does not entail*—indeed, what the concept *necessarily* does not entail.

In trying to show how Kant can meet this epistemic standard, recall from the first chapter how Kant proposes to justify our insight into the content of the concept *body*. He says that when we abstract away from the empirical determinations of this or that body, we arrive at a substratum from which we can no longer abstract. This basic substratum consists just in the determinations of extension and figure, a discovery which licenses the claim that the word 'body' means an extended thing having a determinate figure. In order now to license the claim that 'body' *does not mean* a simple thing, we simply need to push this interrogation slightly further, and to ask what it means to say that something is extended. At minimum, what it means is to say that the thing is given spatially: according to Kant, extendedness is property that comes into being with pure spatial intuition. What then does it mean, then, to say that a thing is given spatially? For Kant, it means that the thing is given as a 'limitation' of space itself (A32, B39). Space, as a pure intuition, is

given as a whole comprising a potential infinity of parts (B40, 4:507); the parts themselves "can only be given through division, and thus not prior to the composite, but only in it" (4:508). This, finally, tells us why bodies cannot be simple. For something to be genuinely simple, Kant maintains, it would have exist independently of and prior to the composite in which it is involved (2:399); but bodies, as Kant's reflection on the givenness of bodies suggests, are not independent in this sense. They are wholly dependent on the pure intuition from which they have been carved out as parts.

Ultimately, therefore, if we can know that the judgment 'no body is simple' is analytic, it is not because we have an intuitive grasp of the different ways that the word 'body' is employed. As Quine suggests, this kind of understanding would not get us as far as analyticity. Instead, we know that 'no bodies are simple' is analytic because we can pursue the meaning of 'body' in a quasi-phenomenological manner, and we can determine that the meaning of 'body' definitely excludes the idea of simplicity.

Admittedly, this kind of insight will come much cheaper in some cases, owing to the fact that we can construct perfectly tautological negative judgments just by arranging the 'logical terms' in the judgments appropriately. Thus, Kant's only other example of negative analytic judgment, 'no unlearned person is learned' (A153/B192), can be grasped as analytic just at the level of its surface grammatical form.[125] What is important to emphasize is that our confidence in the analyticity of a grammatically negative judgment will not always or even usually come this cheaply. As we have just seen, Kant's doctrine of analytic judgment is consistent with judgments like 'no bodies are simple', or 'no

[125] This is not the claim that the judgment *is* true by virtue of its surface grammatical form. Indeed, Kant indicates that the analyticity of the judgment in question rests on the content of its constituent concepts.

substance exists as predicate', judgments which reveal themselves as analytic only insofar as we have insight into their underlying conceptual structure.

2. Knowledge of Analytic Truth

Having seen how Kant proposes to clarify the meanings of our terms, we have already gone some way toward responding to our next problem, the problem of how we come to know that analytic judgments are true. Indeed, since meaning clarification for Kant is not a matter of characterizing the usage of a given term, but of interrogating the object or phenomenon to which the term corresponds, it is clear that my knowledge of meaning is already the kind of understanding that is involved in the assessment of truth or falsity. In order to get some more clarity on Kant's position on this issue, it will be worth briefly restating the sense in which his position might seem somewhat dubious.

If Kant's position seems dubious, in short, it is because he seems to exaggerate the epistemic fruitfulness of the principle of contradiction. Once I know that 'S is *not* P' is contradictory, according to Kant, I know that 'S *is* P' is true. This conflicts with the intuition that suggests that we know that a claim is true just when we know that it accurately represents the object or state of affairs that it targets. As it happens, it also conflicts with what Kant has to say about truth, namely, that truth means the "agreement of cognition with its object" (A58/B82, cf. A157/B197, A293/B350, A820/B848, 9:50, 24:56, 24:81, 24:718, 24:723, 24:822).

Why does Kant say, therefore, that analytic truth is "cognized sufficiently in accordance with the principle of contradiction" (A151/B190, 24:826)? In short, it is because he takes the objective reality of the subject concepts in analytic judgment for granted. Because the concept *substance* corresponds to an object of possible experience,

and because the nature of that object is reflected in the concept, it follows that we can learn about substances themselves simply by inspecting the concept. Just by seeing that the judgment 'substance does not exist as subject' is contradictory, we know that *if* a substance exists, then it exists as subject.[126]

Of course, if a concept has objective reality only insofar as it is related to an actual object, then Kant cannot afford to invoke objective reality in this context, however implicitly. Knowledge that an analytic judgment is true would presuppose acquaintance with the corresponding object or state of affairs, meaning that the judgment could not strictly speaking be an analytic judgment. Fortunately, as we saw above, there is at least a certain class of concepts for which objective reality is established without reference to actual existence. The objective reality of the concept *substance* does not rest on the actual givenness of actual substances, but on the fact that this concept is presupposed in all experience of empirical change whatsoever. Likewise, the concept of a thing that is fully determined does not owe its objective reality to the actual existence of a fully determined thing, but to the fact that it represents a "transcendental ideal...to which all thinking of objects in general must...be traced back" (A576/B604, 8:236).

Finally, therefore, if Kant thinks that knowledge of concept containment suffices for knowledge of truth, it is not because he simply disregards the question of objective significance. Rather, it is because he *assumes* the objective significance of the concepts with which he is dealing. It is this assumption that makes credible the notion that we can derive truths just from an analysis of concepts.

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[126] Kant explains that the "unconditioned necessity of judgments" is equivalent to the "conditioned necessity of the thing". Thus, to cite Kant's own example, the judgment 'a triangle has three angles' does not tell us that a triangle exists necessarily. It tells us that if a triangle exists, then that triangle necessarily has three angles (A593-4/B621-2).

Analytic Truth as Such

In the Chapter Two, I noted that Kant's problems as regards truth are not simply epistemological in nature. Quite apart from the question of how we can know that a judgment is true just insofar as we know what it means, I asked how Kant could justify the semantic claim that an analytic judgment simply *is* true by virtue of meaning, independently of "the way the world is". At this point, it looks like Kant is not actually obliged to support this claim. The reasonis that the meanings, or concepts, that constitute analytic judgments are not entirely untethered to objective facts, in the way that the polemical representations of 'metaphysical analyticity' seem to assume. On the contrary, the concepts that constitute analytic judgments, according to Kant, have objective reality. The concept *body* can becomes the subject of an analytic judgment just insofar as it bears a relation to an object of possible experience. This suggests that if Kant sometimes speaks of analytic judgments as if they are true just by virtue of their constituent concepts, he does not intend to say that they are true by virtue of concepts understood as indifferent intensional unities. Rather, he intends to say that that analytic judgments are true by virtue of concepts understood as objectively determinate.

So why doesn't Kant conclude, in concert with Gilbert Harman, Paul Boghossian, and others in the post-Quinean tradition of skepticism about analyticity, that so-called analytic truths are not actually analytic? Having admitted that analytic judgments must have objective import, hasn't Kant admitted that analytic truths depend substantially on the objects and states of affairs that they are about? The Kantian response to this problem involves an appeal to the same subtle feature of objective reality that I invoked above. In the case of concepts originating with the understanding, Kant thinks, objective reality is

established a priori. The objective reality of the concept *causation* is not secured on the basis of actually given causal relations; it is secured on the basis of transcendental deduction, which shows that the concept is a condition for any experience of causation whatsoever. This means that when we analyze concepts like causation, we are not reproducing the results of aposteriori inquiry; we are spelling out the understanding that we must have if a certain kind of object (or relation between objects) is to be represented empirically. This allows for a provisional clarification of the semantics of analytic judgment. For Kant, analytic judgments are indeed *about* objects, but they do not depend for their truth *on* those objects. Strictly speaking, they depend for their truth just on the concepts through which those objects come to be given in the first place.

3. Analyticity and Logical Form

In Section 2 above, I considered two ways in which the relation between analytic judgment and subject-predicate form could be rendered unstable. Following Bolzano in his emphasis on propositional form as the truth-maker for analytic judgment, it looked as if we could extend analyticity to any substitution instance of any truth-preserving propositional form. And following Katz in his emphasis on semantic redundancy as the distinguishing feature of analytic truth, it looked at if it was possible to extend analyticity to any appropriately redundant judgment, regardless of its underlying logical form.

Let's begin by taking up the challenge to Kant's position associated with Bolzano. As we saw, what sets this challenge in motion is Bolzano's re-characterization of the idea of analytic judgment. Bolzano suggests that what actually distinguishes an analytic judgment is the fact that its truth or falsity "remains the same no matter what changes are made" in its constitutive concepts. Thus, Kant's example, 'all bodies are composite', still

qualifies as analytic for Bolzano, because its truth-value remains constant under variation; but 'all men are learned or not learned' is also analytic from Bolzano's perspective, because its truth-value likewise remains constant under variation.

Supposing, then, that Kant still wants to say that 'all bodies are extended' is analytic and that 'all men are learned or not learned' is not, on what basis can he do so? An initial thought might be that 'all men are learned or not learned' does not seem to be 'analytic' in the strict sense of the word. Since the concept *man* does not plausibly 'contain' the disjunction of *learned* and *unlearned*, it is far from clear that the latter can be extracted analytically from the former. But this response misses the point. If 'all men are learned or not learned' counts as analytic, from Bolzano's perspective, it is not because this judgment follows from the mereological content of the concept *man*. Rather, as Alberto Coffa explains, it is because it follows from the non-mereological, essentially inferential content of its constituent logical concepts, *predication* and *conjunction*.[127] Bolzano's contribution, according to Coffa, was to have realized that conceptual content extends beyond the narrow boundaries acknowledge by Kant, and to have broadened the category of purely conceptual judgment accordingly.

Fortunately, since a direct response to Bolzano on this score would mean engaging difficult questions about the nature of logic and logical concepts, it turns out that there is an indirect, but far-reaching strategy available. Instead of trying to defend the non-analytic status of 'all men are learned or not learned' against a progressively more expansive understanding of conceptual content and conceptual analysis, Kant can argue that the judgment in question simply cannot satisfy the most basic condition associated

[127] Alberto Coffa, "Kant, Bolzano, and the Emergence of Logicism", p. 684, and *The Semantic Tradition from Kant to Carnap*, p. 35.

with analytic judgment, indeed the most basic condition that Kant, Bolzano, and Frege all associate with analytic judgment. He can argue that 'all men are learned or not learned' cannot possibly be *true*—not in the sense that it is necessarily false, but in the sense that it cannot rise to the level of a full-fledged truth. In order to see how this argument might work, it will be necessary to see what Kant has to say about the nature of disjunctive judgments such as ‘all men are learned or not learned’.

As we saw in Chapter Two, both hypothetical and disjunctive judgments are analyzable in terms of a relation between individual judgments rather than concepts. Hypothetical judgments having the form 'if A is B, then A is C' are correctly viewed in terms of a relation of implication, or consequence, between the judgments 'A is B' and 'A is C'; and disjunctive judgments having the form 'A is B or not-B' are correctly viewed in terms of a relation of opposition, or exclusion, between the judgments 'A is B' and 'A is not-B'. Beginning on the side of disjunctive judgments, what I want to focus on is what Kant has to say about the modal properties of these individual judgments.

According to Kant, disjunctive judgments are comprised essentially up of 'problematic' judgments. This means that in entertaining a disjunctive judgment, we remain agnostic as regards the truth or falsity of its disjuncts. They are put forward merely as judgments that someone "might assume", not as claims to which the judger is committed in one way or another. Nor is this in any sense a defect of the disjunctive judgment. From Kant's perspective, if I already know that the proposition 'A is B' is true, then no cognitive purpose is served by opposing it to 'A is not-B'. Having already found the true judgment, then there is no need to mark out the different possible paths *toward* truth that I could conceivably take (A75/B101).

This gives us some, but perhaps not enough reason to conclude that disjunctive judgments fail to rise to the level of truth. Since the role of disjunctive judgment is arguably that of spelling out different candidates for truth, it would, from this angle, be somewhat perverse to say that a given disjunction is true in and of itself; but if that same disjunction succeeds in spelling out *all* of the candidates within some particular domain, then we might be tempted to conclude that the disjunction as a whole is true. Some support for this second, nowadays commonly accepted logical interpretation, comes in the Transcendental Dialectic, where Kant says that it is a basic principle of logic that for every concept, only one of two "contradictorily opposed predicates...can apply to it" (A571/B579). Hence, there is a sense in which we are entitled a priori to the judgment 'all men are learned or unlearned'. The judgment goes through merely insofar as it conforms to the "logical form of cognition".

Whether or not the judgment goes through logically, however, we still do not know that this judgment is true. We can agree that we are rationally obliged to affirm this judgment, since to do otherwise would be to fall out of sync with the "general and necessary rules of the understanding". But as we discovered above in connection with the principle of contradiction, Kant denies that conformity with the rules of the understanding is sufficient for truth (A59/B84, cf. A60/B85, A294/B350, 24:719). He maintains that truth is found "only in judgments, i.e. only in the relation of the object to our understanding" (A293/B350).

Someone who thinks that 'all men are learned or not learned' is true, of course, will respond here by saying that it fulfills Kant's material condition for truth as well. She will insist that the judgment in question agrees sufficiently with its object. But this, I

think, would be to adopt an overly broad interpretation of what Kant means by agreement. It would be to say that 'all men are learned or not learned' agrees with its object just in the sense that it does not contradict its object, whereas what Kant means by 'agreement' seems to be a much stronger conformity between judgment and object—a conformity such that the judgment reflects, through its predicate concept, a property that positively distinguishes the object corresponding to the subject concept (A53/B83, 2:397, 24:826). Since disjunctive judgments predicate only indeterminately (1:392), no disjunctive judgment can be said to agree with its object in this strong sense.

In light of these considerations, it already seems somewhat doubtful that Kant's third category of judgment, hypothetical judgment, can rise to the level of truth. Because truth amounts to the agreement between predicate and property, hypothetical judgments, having neither subject nor predicate, seem to be ruled out in advance. But what if it were possible to convert hypothetical judgments into subject-predicate judgments? In that case, we might be tempted to say that the former are implicitly subject-predicate judgments, and hence, that they are implicitly the kinds of judgments that can turn out to be true. This would have significant consequences at the level of analyticity. Since there would be no barrier to considering hypothetical judgments as true, we would be thrown back on the possibility that some hypothetical judgments might be true automatically, just by virtue of the inferential content embodied in their constituent logical concepts.

At least in principle, Kant has a way of ensuring that this line of interpretation remains closed. Against the current philosophic consensus, he denies that hypothetical judgments are equivalent to subject-predicate judgments (9:105, 24:933), meaning that he denies that they can simply inherit the truth conditions of their subject-predicate

counterparts. Kant's argument turns, once again, on the modal status of the propositions that comprise hypothetical judgments.

According to Kant, the antecedent and consequent in a hypothetical judgment have the status of problematic propositions (A75/B100). As we saw in Chapter Two, this means that in 'maintaining' a hypothetical judgment, we remain uncommitted to the truth of either the antecedent or the consequent. What we are committed to is that *if* the antecedent is true, *then* the consequent is true as well. We affirm the "correctness of the connection" [*Richtigkeit der Verknüpfung*] between antecedent and consequent (9:106, cf. 24:934). In this respect, hypothetical judgment contrasts quite sharply with categorical judgment. To judge that 'if something is a body, then it is divisible', according to Kant, is to say that *on the condition that a body exists*, then that body is divisible. It is to make a claim whose 'correctness' is independent of the existence of an actual body. To judge that 'all bodies are divisible', on the other hand, is to say that bodies *actually are* divisible (A75/B100, 9:105-8, 24:934). It is to make a claim that is true if all of the objects falling under the subject concept also fall under the predicate concept, and false if at least some of the objects falling under the subject concept do not fall under the predicate concept.

From Kant's perspective, therefore, the attempt to reduce hypothetical judgments to categorical judgments cannot succeed, because these forms of judgments say something quite different. The hypothetical judgment says that given a particular state of affairs, a distinct state of affairs follows. The categorical judgment says the objects falling under a particular subject concept also fall under a particular predicate concept. This in turn explains why hypothetical judgment is not susceptible of truth, and why the categorical judgment is. On Kant's analysis, hypothetical judgments are expressly

unrelated to any real object or state of affairs. Categorical judgments, on the other hand, are intrinsically oriented toward a corresponding object or set of objects. What a categorical judgment seeks to do, from Kant's perspective, is to articulate one of the ways in which the empirical manifold has been invested with conceptual form. Supposing that it succeeds in doing so (e.g. supposing that the set of objects that is thought under the concept *man* is also thought under the concept *being* mortal) then it is true.[128]

Here, a defender of the view that hypothetical judgments can qualify as analytic might object as follows. If Kant's case turns on the notion that hypothetical judgments fall short of truth and falsity, she might say, then Kant has failed to make his case, since he has admitted that hypothetical judgments can be 'correct'. Kant's response, which can be distilled from a pair of brief remarks concerning the range of possible hypothetical judgments, is that correctness (*Richtigkeit*) is a much wider and much weaker property than truth (*Wahrheit*) (9:105, 24:933, cf. 24:89). Consider the judgment 'if a triangle is a four-sided rectilinear figure, then the internal angles of a triangle sum to 360 degrees'. This judgment is correct, in the sense that the consequent follows from the antecedent; but even if we leave aside the requirement that true, or potentially true judgments, must have subject-predicate form, it would nevertheless be inappropriate from Kant's perspective to say that the judgment in question is true, because it cannot be corroborated empirically. Its constituent propositions are patently false. By way of a slightly different case, consider the judgment 'if x is a closed, two-sided figure, then x is biangular'. Again,

[128] Longuenesse makes a similar point about the implicit object-orientedness of categorical judgment: "*objectivity*, in the full sense of a *conformity to the object* of the combination of representations is what the activity of judgment tends to achieve. This is the immanent norm, as it were, of judgment..." She adds that the realization of the objective relation is Kant's benchmark for truth (*Kant and the Capacity to Judge*, p. 82).

this judgment is correct, because if a closed two-sided figure is given, then it is presumably given as biangular; but a closed two-sided figure *cannot be given*, so there is no way of verifying that the judgment agrees with its object, in a material sense, and so no basis on which to decide whether the judgment is true or false.

Shifting gears slightly, our objector might respond here by saying that it is irrelevant to her position whether judgments like the ones just cited are true, in the strong, Kantian sense. The fact that such judgments are correct, and can be known as such a priori, is all that she requires. From her perspective, this already demonstrates that purely conceptual knowledge can be expressed in non-subject-predicate form. Against this, I can only repeat what I have stressed over the course of the previous two chapters, namely, that analytic judgment, for Kant, is not a matter of articulating the content of concepts taken as autonomous quasi-objects; it is a matter of articulating the content of concepts that perform an actual role in the cognition of appearances. A theory of analytic judgment that would admit a judgment like 'if x is a closed two-sided figure, then x is biangular' is therefore far too ecumenical, from Kant's perspective. It is to mistake what can be asserted a priori for what can be asserted a priori of the logical structure of appearances. By keeping analytic judgment within the boundaries of subject-predicate form, thus, within the boundaries of a propositional form that necessarily makes a claim to objectivity, Kant manages to rule out this mistake in advance.

Finally, it is worth generalizing a point that I made above with respect to disjunctive judgments. In short, if Kant denies that disjunctive or hypothetical judgments are susceptible of truth, and if this denial then becomes the basis of the claim that such judgments cannot be analytic, it is not because these forms of judgments are defective

relative to subject-predicate judgments. On the contrary, it is because they perform a distinct function with respect to cognition overall. The role of disjunctive judgments is that of enumerating different ways the world might be, independently of the way the world actually is; the role of hypothetical judgments is that of considering the relations between distinct states of affairs, independently of which states of affairs happen to given. To insist, in the face of these differences, that such judgments can rise to the level of truth, and perhaps even to the level of analytic truth, is, from Kant's perspective, to flatten the diversity of human cognition.

Analyticity and Logical Truth

Before moving on to consider Katz's understanding of analytic judgment, it is worth making note of a consequence that arises from our discussion of Bolzano. In short, it looks like the principles that we have brought forward in our attempt to block Bolzano's re-interpretation of analytic judgment succeed equally well against Frege's even more radical reformulation of analytic judgment. In order to see in what sense this is the case, and what implications it might have for our understanding of analytic judgment, it will be necessary to look briefly at what Frege has to say on this subject.

In the literature, Frege's doctrine of analyticity is often presented as a successor to Bolzano's.[129] With Bolzano, we get the claim that analyticity amounts to truth in virtue of propositional form, and the important accompanying claim that certain truth-preserving propositional forms are comprised just of logical variables and logical connectives. A half-century later, with Frege, we get the claim that analyticity simply is logical validity:

[129] e.g. Juhl and Looms, *Analyticity*, p. 13.

Frege defines an analytic judgment as a judgment that can be proven just on the basis of "general logical laws and definitions".[130]

Significantly, since Frege thinks that this formulation captures what "earlier authors, Kant in particular" understood by analytic judgment, it does provide a way of explaining in what sense canonical examples like 'all bodies are extended' qualify as analytic. Supposing that a definition of body is granted, we can reduce this judgment to the logical law 'A which is B is B'. More importantly, Frege's definition allows us to show that every logically valid proposition whatsoever is analytic, since logical validity just means derivability from basic logical laws. (In principle, Frege's definition also allows us to show that every arithmetical proposition is analytic, since, according to Frege, all such propositions can be proven on the basis of logic).[131]

There are a number of ways in which the Kantian response to Frege could unfold. Following Hintikka, we could respond by addressing the differences between Kantian and Fregean logic. We could argue that Frege's quantificational logic imports existential commitments into logic, and thus crosses over from the purely analytic to the synthetic.[132] But this would be to grant too much to Frege, I think. It would be to assume that on *some* construal of logic, the class of logically valid statements comes out as

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[130] Frege, *Foundations of Arithmetic*, p. 4.
[131] Frege, *Foundations of Arithmetic*, p. 99. The proposed reduction of arithmetic to logic, of course, turns out to be impossible. Famously, Gödel showed that there is no set of logical axioms on the basis of which all true arithmetical propositions can be proven.
[132] According to Hintikka, Kant would have said that quantification theory in general "hinges on 'non-logical', intuitive methods", since he would have heard a reference to individuals in both universal and existential quantification (*Logic, Language-Games, and Information*, pp. 139-140).

analytic.[133] Kant's real response to Frege, I want to suggest, would run along the same lines as his response to Bolzano. It would consist in the argument that since logical validity is insufficient for truth, it is ipso facto insufficient for analyticity. By way of showing that this is a plausible interpretation of Kant, it will be necessary to say a few words about what general logic is—and is not—from his perspective.

According to Kant, pure general logic represents the "science of the necessary laws of the understanding and of reason in general..." (9:13, cf. 24:24, Bix, A53/B77), meaning the laws of thought that we are obliged to observe insofar as our thought is to be internally consistent. At its most general level, then, pure general logic encompasses the law of contradiction, which states that a "cognition is false if it contradicts itself" (24:826); it encompasses the closely related law of excluded middle, which says that given a contradictory pair, only one member of that pair can be true at a given moment (9:130, A571/B599); and it encompasses law of identity, which is also closely related to the law of contradiction, and which says that objects are necessarily self-identical. At a slightly lower level of generality, logic encompasses the basic forms of valid inference. Thus, it encompasses the principle which states that we can infer 'immediately' from 'all As are B' to 'some As are B' (9:116, A303/B360); it encompasses the principle of

[133] The notion that Kant is committed to the analytic status of logic is a consistent theme in the secondary literature. Thus, when Frege and Ayer define analytic judgment as truth by virtue of logic plus definitions, both authors suggest that they are paraphrasing (or clarifying) Kant's original formulation (*Foundations of Arithmetic*, p. 3; *Language*, *Truth*, *and Logic*, p. 78). Arthur Pap, for his part, simply asserts without further ado that "all logical truths" are analytic according to Kant ("Are All Necessary Propositions Analytic?"). He is seconded in this blunt assertion by John MacFarlane and Edgar Morscher ("Frege, Kant, and the Logic in Logicism", p. 25; "The Great Divide Within Austrian Philosophy", p. 250). More recently, Lanier Anderson has offered a qualified, textually sensitive endorsement of the view that Kant regards "formal general logic" as analytic ("The Wollfian Paradigm and its Discontents", pp. 42-6).

mediate, or syllogistic inference which says that given 'all As are B' and 'C is A', we can infer 'C is B'; and it encompasses the basic forms of hypothetical inference, modus ponens and modus tollendo tollens (9:129).[134]

What we want to know now is just whether these basic laws of thought are *true*. Assuming that truth is to be understood in terms of conformity to objects, this is equivalent to the question of whether these laws of thought agree with some object or set of objects. But what kind of object could fit the bill? Naturally, the best candidate is the totality of all objects whatsoever. We could say that logic agrees with all objects whatsoever in the sense that it describes the parameters within which every object and set of objects is given. Thus, the law of contradiction would reflect the fact that objects are not simultaneously red and not red, or shiny and not shiny; and the law of identity would reflect the fact that things actually are self-identical. The notion that general logic represents a theory of "all objects in general" does find some support in Kant's texts (9:15). But Kant's texts also offer us a very compelling reason to be suspicious as regards the agreement between general logic and the totality of objects. Consider the following example from Kant's Transcendental Amphiboly.

From the standpoint of "logical reflection", Kant explains, things which are internally identical are identical *tout court*. If there is no way of distinguishing between one raindrop and another on the basis of their internal properties, then there is no logical basis for distinguishing between them. But transcendental logic dictates that things which

[134] At least according to the letter of Kant's texts, general logic does not extend to encompass every theorem that is derivable from the basic laws of logic. This reflects the fact that Kant does not understand logic as a kind of calculus from which infinitely many indefinitely complex theorems can be derived. As indicated, logic for Kant is strongly tied to actual human cognition, which, in a practical sense, is plausibly restricted to just the limited stock of inferential laws that Kant sets out.

are internally identical can nevertheless be numerically distinct, provided that they are "intuited in different places at the same time" (A264/B319). In other words, if two raindrops are in different places, then they are different raindrops.

Consider another example. In general logic, according to Kant, "realities (as mere affirmations) never logically oppose each other" (A273/B328). In other words, we can't derive a contradiction from two purely affirmative concepts. But transcendental logic recognizes that the objective correlates of affirmative concepts can indeed cancel one another out, provided that they are opposed to one another in some material sense—say, because they are moving in opposite directions.[135]

These examples prove to be quite instructive as regards the issue at hand. Since general logic evidently falls out of step with spatio-temporal objectivity in certain instances, it turns out that we cannot invoke the agreement between general logic and the totality of objects as a way of showing that the former is true. This suggests that we should attempt a different strategy. Instead of trying to show that general logic is true in a material sense, we should try to show that Kant's general logic is true in a non-material, strictly formal sense.

At first glance, Kant seems to allow for just such a formal variety of truth. In the Vienna Logic, he notes that "in logic, truth is an agreement of cognition with the laws of the understanding" (24:824); and in the Jäsche Logic, he suggests that logic contains "the necessary rules of all (formal) truth" (9:16). As it turns out, though, these apparently categorical assertions belie a more nuanced conception of the role of the formal logic

[135] Expressed in symbolic terms, we could say that the following inferences are valid in general but not transcendental logic: $\forall x \forall y(PQRx \wedge PQRy \rightarrow x = y)$, $\forall x \forall y(x,y \rightarrow x \wedge y)$.

relative to truth. Kant is not saying that there is a distinct, purely logical variety of truth. What he is saying is that the possibility of truth presupposes the satisfaction of a certain formal or logical condition. In order for any judgment whatsoever to qualify as true, it needs to agree, first, with the basic laws of the understanding, and second, with the object of the judgment (24:823, A59/B84, B115). If a given judgment cannot be coherently entertained, then there is no question of assessing its conformity with an object. 'Gold is not a yellow metal' can neither agree nor disagree with its object, since it is already contradictory at the level of its constituent concepts (supposing of course that the concept *gold* is constituted by predicates *yellow* and *metallic*). Ultimately, then, what we should take from this is just that our judgments need to be logically inoffensive if they are to be susceptible of truth. Kant's invocation of formal or logical truth has given us no reason to think that strictly logical judgments are true in and of themselves. To conclude, it will be instructive to contrast the case of logic with that of mathematics.

For Kant, mathematical judgments are indeed susceptible of truth and falsity, because mathematical judgments are related to objects, namely, to the pure intuitional correlates of their constituent concepts. This explains why Kant is prepared to situate mathematics in terms of the analytic-synthetic distinction. Because mathematical judgments are related to objects, he thinks that it is meaningful to ask whether they spell out our antecedent understanding of those objects, or in some way augment our understanding of the same. This in turn provides some context for Kant's failure even to *pose* this question in the case of logic. My suggestion is that Kant's failure in this regard does not reflect an assumption that logical simply must be analytic. It reflects the claim

that pure general logic, unlike mathematics, does not rise to the level of objective significance at which the analytic-synthetic distinction becomes meaningful.

Semantic Redundancy

Moving on to Jerrold Katz, there is a strong sense in which we should see his attempt to extend the formal boundaries of analytic judgment as symmetrical to Frege's attempt. Both Katz and Frege begin from a claim concerning the essence of Kant's doctrine of analyticity; and both use this claim as a way of broadening the class of judgments that will qualify as analytic. Frege, for his part, takes Kant to have understood analytic judgment primarily in terms of logical validity. Frege's own contribution consists in the observation that the class of logically valid judgments is broader than the class of subject-predicate judgments. Katz, meanwhile, thinks that Kant was equivocal between a logical and a semantic characterization of analytic judgment, but suggests that the oft-invoked 'metaphor' of concept containment is best understood in terms of semantic redundancy, specifically, the redundancy that obtains when one term in a syntactically simple proposition functions as "a microcosm of the whole proposition".[136] Katz's contribution consists just in the observation that this relation can exist in judgments that are not subject-predicate in form, for instance, in the two-place judgment 'John walks with those with whom he strolls'.[137] According to Katz, the concept of someone walking is contained in the concept of someone strolling, meaning that this judgment is redundant in precisely the same sense as 'all bodies are extended'.

[136] *Cogitations*, p. 64.
[137] *Cogitations*, p. 62.

Let's suppose, then, that Kant would be resistant to admitting 'John walks with those with whom he strolls' as analytic. On what basis can he justify this exclusion? The most obvious strategy would be to target the particular containment relation Katz wants to assert here. Kant could say that the concept of someone strolling does not actually contain the concept of someone walking. In a broad sense, I think that this argument is sound: the concept of someone strolling cannot be said meaningfully to contain the concept of someone walking. But that is not because the concept of someone strolling can be said to positively *exclude* the concept of someone walking; rather, it is because the concept of someone strolling is just not the kind of concept, or representation, that determinately includes other concepts or representations in the first place. As I suggested in the first chapter, determinate conceptual content for Kant is an artifact just of explicit definition and apriority. For Kant, it is possible to say that a concept X includes Y just when X has been stipulated to include Y, or when the inclusion of Y in X is a matter of cognitive necessity. Thus, since the concept of strolling is not obviously subject to explicit definition, and is clearly not a matter of a priori, cognitive necessity, it looks as if there is no appropriately Kantian reason to think that this concept has any determinate content whatsoever, let alone the precise content that Katz ascribes to it.

This suggests an obvious course of action. We should identify a concept that does have determinate content, according to Kant, and try to show that it can be cast in the form of a two-place, relational proposition. Let's begin with the concept *gold*, which, as we know, is comprised of the predicates yellowness, metallicity, and corporeality. An initial thought is that we could unpack this concept in terms of the two-place relation 'if, then', as the judgment 'if something is gold, then it is a yellow metal body'. But this

option has already been ruled out for reasons explored above: being hypothetical, the judgment cannot be true, which means that it cannot be analytic. Another thought is that this concept could be expressed relationally as the proposition 'gold is equal to a yellow metal body'. But this is out of keeping with the way that Kant seems to understand equality, namely, as a relation that obtains between spatio-temporal magnitudes (e.g. B16, A164/B204-5, A179/B222, A716/B744, 4:284-5, 4:320, 4:370). To say that gold is *identical with* a yellow metal body, likewise, is slightly out of keeping with Kant's usage. As a predicate, identity seems to bear either on the relation between concepts (as in, 'the concept *gold* is identical with the predicates yellow, metallic, and corporeality) or on the relation between particular objects (as in, 'this raindrop is identical to that raindrop'). In any case, it is not clear that 'gold is identical to a yellow metallic body' represents a meaningful example of a non-subject-predicate analytic judgment.

In the face of these initial difficulties, perhaps it is worth looking more closely at Katz's example, and asking how he is able to generate a judgment is both redundant and relational. He does so, in short, by asserting a relation of containment between concepts that are themselves relational: the concepts *person who strolls with ( )* and the concept *person who walks with ( )*. Perhaps what we want, therefore, is a properly Kantian concept that is both determinate *and* relational. In that case, we could generate an analytic, two-place proposition by exploiting the relation internal to that concept. Let's take the concept *causation*, which is one of the three relational concepts that Kant includes in his table of categories. According to Kant, this concept contains the idea of a relation between two things, one of which follows necessarily from the other "in accordance with a rule" (A90/B122, cf. B168, A243/B301). This suggests that we are

entitled to the relational judgment ‘X follows in accordance with a rule from that which causes X’. Since the category of *causation* fully embodies the idea of rule-governed consequence, the judgment is redundant in the appropriate sense.

If we have managed to come slightly closer to our goal, however, this judgment will not enable us to reach it. The reason is that while the judgment in question is not, strictly speaking, a hypothetical judgment, because it does not contain the terms 'if' and 'then', the intensional upshot is the same. It asks us to suppose that something causes X, and then spells out what follows from this supposition. It can be paraphrased, quite intuitively, as 'if Y causes X, then X follows from Y in accordance with a rule'. From Kant's perspective, this means that the judgment in question carries no intrinsic commitment to any state of affairs, and hence, that it is not truth-evaluable. While we are entitled to pronounce on the correctness or incorrectness of the judgment, because we can determine whether the consequent *would* in fact follow from the antecedent, we are not entitled to pronounce on its truth, because, for the purposes of the hypothetical judgment, we remain agnostic as to whether the antecedent actually holds.

Finally, therefore, it looks as if our attempt to make room for a relational, non-subject-predicate analytic judgment has come to nothing. Either the properly Kantian concept does not include relational content in the first place, and so cannot be unpacked in relational form; or such concepts *do* include relational content, but cannot be unpacked in such a way as to yield a judgment that is both analytic and true, in the strong Kantian sense of truth.

More generally, it appears as if our attempt to extend the formal boundaries of analytic judgment on the basis of Kantian assumptions has been unsuccessful. Pace

Bolzano and Frege, these boundaries cannot be extended by identifying analyticity with logical validity, since the class of logically valid judgments is much larger than the class of judgments that are both logically valid and true. And pace Katz, they cannot be extended by identifying analyticity with redundancy, since the class of judgments that are in some way redundant[138] is much larger the class of judgments that both redundant and true.

4. Containment

The next issue to deal with is that of containment. On pain of conceding that Kant's preferred way of talking about analytic judgments actually does very little to illuminate analytic judgments, we have to show that there is a meaningful sense in which one concept can be said to 'contain' another. In the previous chapter, we considered Anderson's attempt to render this notion credible—his attempt to show that relations of conceptual containment can be understood in terms of the relations of conceptual hierarchy that are schematized on Poprhyan 'trees'. What I want to do here, by way of providing an opening onto the issue of containment, is to ask whether Anderson gives a meaningful account of what Kant means when he speaks of containment.

An initial question for Anderson concerns the conceptual mappings, or trees, on which his account of containment is based. We may agree to follow Anderson's proposed

[138] The kind of redundancy that Katz has in mind is a redundancy at the level of linguistic meaning (*Cogitations*, p. 60). 'John walks with those with whom he strolls' is analytic, from Katz's perspective, because the understanding that is involved in grasping the expression 'walking with' is the same as the understanding the goes into the grasping the expression 'strolling with'. This is presumably why Katz is untroubled by the requirement that analytic judgments be true. Since there are undoubtedly judgments that are linguistically redundant in the right way, but which could never actually hold of some objective correlate (e.g. 'unicorns are mythical one-horned animals'), an insistence that analytic judgment also be true would simply be arbitrary from Katz's perspective.

usage, and to say that A is contained in B when A appears 'above' B on some conceptual tree. But how do we come to have these trees in the first place? Anderson's answer, as characterized by Ian Proops, consists in an appeal to the "actual classificatory schemes developed by working scientists".[139] Thus, Anderson proposes to base claims about concept containment on the conceptual mappings that emerge from actual scientific practice. This has a consequence to which both Anderson and Proops are attentive. Since the classificatory schemes used by working scientists are provisional, the containment relations that can read off of those schemes will also be provisional. This in turn implies that the analytic judgments that articulate containment relations will not be absolutely a priori, as Kant expects, but 'revisable'. The judgment 'whales are mammals' may count as analytic now, because whales currently appear under the heading of 'mammal'; but since we cannot exclude the possibility of a refinement in our understanding of mammals, or of whales, we cannot exclude the possibility that we may cease to group whales under the heading of 'mammal', and thus cease to count the judgment 'whales are mammals' as analytic.

From one angle, this looks like a self-inflicted reductio ad absurdum. Since Kant is committed to the universal apriority of analytic judgments, a theory of containment that suggests that analytic judgments are revisable must simply be a flawed model of containment. Anderson, for his part, acknowledges that his result "is hard to reconcile with the strict apriority and necessity Kant officially attributes to [analyticities]".[140] Nevertheless, he thinks that this understanding of containment is consistent with an even

[139] Proops, "Kant's Conception of Analytic Judgment", p. 599.
[140] Anderson, "The Wollfian Paradigm and Its Discontents", p. 68.

more fundamental commitment, Kant's commitment to the revisability of empirical concepts.

What reason does Anderson give us to think that Kant allows for the revision of empirical concepts? Anderson draws for support in this regard on a passage that we examined in the first chapter, in which Kant discusses the difficulties involved in defining empirical concepts:

> One makes use of certain marks only as long as they are sufficient for making distinctions; new observations, however, take some away and add some, and therefore the concept never remains within secure boundaries. And in any case, what would be the point of defining such a concept? – since when, e.g., water and its properties are under discussion, one will not stop at what is intended by the word "water" but rather advance to experiments, and the word, with the few marks that are attached to it, is to constitute only a *designation* and not a concept of the thing (A728/B756).

For Anderson, the key notion here is designation. When Kant says that an empirical concept 'designates' its object, according to Anderson, he is saying that an empirical concept relates immediately to its object. This means that empirical concepts are "determined" by the objects to which they correspond, rather than any fixed "conceptual content". And it means that the content that an empirical concept does have can fluctuate relatively widely, because the concept as such is anchored to an 'external' source of conceptual stability: "since the "designation" is available to guarantee the concept's identity across…theory change", Anderson says, "it is meaningful to speak of genuine alterations in the content of the same concept".[141]

From my perspective, this is simply a misreading of the passage cited above. As I read this passage, Kant is not saying that empirical concepts 'designate' their objective correlates immediately. What he is saying, quite explicitly, is that designation proceeds through words, and the "few marks" that are attached to those words. Designation, for

[141] Anderson, "The Wollfian Paradigm and Its Discontents", p. 68.

Kant, is not a pure, pre-conceptual act of pointing. It is an act wherein a minimal, explicitly verbal concept is correlated with an object.

Of course, this by itself does not show that these minimal concepts are invulnerable to fluctuation. As we saw in the last chapter, there are good reasons to think that a designative concept *must* be able to change, lest that concept cease to designative its concept adequately. The point is just that these reasons exert no influence on Kant's own understanding of designative concepts. From his perspective, if the concept containing the predicates *yellowness* and *metallicity* suffices to distinguish gold *now*, then it suffices to distinguish gold *tout court*. He makes no accommodation for the possibility that the core, analytic predicates of a concept might at some point come up for revision.

What should we take from this? Unlike Proops, I don't think that Anderson's failure to flesh out the idea of containment is more fodder for the charge that containment is an empty figure of speech. What we can take from Anderson's account, rather, is a sense of why containment is justified *as a metaphor*. What Anderson allows us to see, contrary to his intentions, is that empirical concepts for Kant are individuated *not* by their objective correlates, but by the precise set of predicate concepts to which they are related. The concept *gold* is not individuated by gold itself; it is individuated by the predicate concepts *yellowness*, *corporeality*, and *metallicity*. Supposing that we take the initial metaphorical step of considering the concept *gold* as a kind of object, therefore, the notion that it should 'contain' this conjunction of predicates is not hard to credit. Being related to this set of predicates is what makes the concept *gold* the concept that it is.

Containment Defended

At this point, therefore, we have some initial justification for thinking of containment as a *necessary constitutive relation* between distinct concepts. A concept R 'contains' a concept S, it seems, when the relation between R and S is a necessary condition of R's being the concept that it is. What we want to know now is why such relations should obtain. Beyond Kant's declarations to this effect, what reason do we have to think that there are concepts that are constituted by their relation to other concepts? By way of showing that there are such concepts, let's attempt a kind of proof by contradiction. Given a concept R that is said to be related constitutively to a distinct concept, let's try to show that R bears no such relation. Supposing that this cannot be shown, then we can conclude that R is in fact constituted by its relation to a distinct concept or set of concepts. This in turn will indicate that the idea of concept containment has a meaningful role to play in the analysis of cognition.

Consider the concept *gold*. Kant, as we know, maintains that this concept contains the concepts *yellowness, metallicity*, and *corporeality*. Let's assume, on the contrary, that *gold* does not contain these predicate concepts. Let's assume that *gold* contains nothing but the idea of something's being gold. How would such a concept come to be part of our conceptual repertoire? Since it is not plausibly a pure concept of the understanding (since it is not plausibly necessary from the standpoint of coherent thought and experience) it follows that it is an empirical concept. And since it is an empirical concept, it follows that it is abstracted from experience. What kind of experience would give rise to the kind of ideally simple concept that we are entertaining here? Evidently, we must suppose that we experience some kind of unified property, which we in turn concretize in the form of a

concept. The problem, from a Kantian perspective, is that no such property can be given. As we saw in Chapter Three, Kant thinks that the properties that are available for conceptualization are properties that are given via sensation; and he thinks that sensation offers up general perceptual properties like colors, tastes, and tactile phenomena exclusively (A21/B35). Supposing, then, that our concept is to have its content from some really given property, then it must have its content from *several* properties. It is only insofar as it refers to several general properties at once that the extension of the concept will come out as sufficiently narrow.

Let's try the same demonstration in the case of the concept *triangle*. Instead of supposing that this concept contains the predicate concepts *three-sidedness* and *rectilinearity*, let's suppose that it contains only the idea of a something's being a triangle. What we want to know is how we could come to have this ideally simple concept. Since the ability to recognize three-sided figures is not mandatory from the standpoint of logically coherent experience, we know that the proposed concept cannot be a priori. On the other hand, there are reasons to think that the proposed concept cannot be empirical either. First, even if there were some kind of primitive experience of triangularity, this experience could not form the basis of an appropriately general concept. According to Kant, "no image whatever of a triangle would ever be adequate to the concept of it. For it would not attain the generality of the concept, which makes this valid for all triangles, right or acute, etc., but would always be limited to one part of this sphere" (A141/B180). Second, even if we could show that *triangle* was a purely empirical concept, we could not extend this account to concepts like *chiliagon*: obviously, the latter does not correspond to any sensible experience whatsoever, let alone a primitive sensible experience. Both of

these demands—the demand for sufficiently general conceptual content, and the demand for a sufficiently general account of concept formation—can be satisfied by thinking about geometrical concepts in the way that Kant himself does: as concepts that are formed a priori on the basis of general empirical concepts. Since the concept *triangle* will be formed on the basis of *three-sidedness* and *rectilinearity*, it will apply to all triangles whatsoever; and since these predicate concepts (or slight variations on them) can be used to construct other kinds of concepts, we will be able to give a unified account of concept formation.

Finally, let's consider the concept *cause*. Let's suppose that this concept contains nothing but the idea of something's being a cause, and let's ask how this concept might have originated. Obviously, it cannot have come directly from experience: with Hume, Kant maintains that our purely sensible encounter with objects cannot be the basis for the actual concept of causality. As is turns out, though, the proposed concept cannot be a priori either. In order to see this, consider the kinds of features that we expect the corresponding phenomenon to have. According to Kant himself, a cause invariably comes before something else. Even where cause and effect are practically simultaneous, we can nevertheless show that the cause has a temporal priority relative to the effect (A203/B248). This being the case, it follows that a cause *qua* object cannot be represented by a pure, a priori concept, because an a priori concept cannot embody a sensible property like temporal precedence. Being products of the understanding, a priori concepts embody logical properties exclusively. This allows us to understand why our actual concept of causation is constitutively related to a distinct concept. For Kant, this concept has the function of representing things in terms of the logical properties that are

necessary but not sufficient for something's being a cause. In other words, this concept represents things in terms of properties that are *not yet* the property of being a cause. This means that the concept itself is constitutively related to a concept that is distinguishable from the concept *cause* itself. Specifically, it is related to the more general concept of a *something that allows an inference to something else*.

In the previous chapter, I alluded to Fodor and Lepore, and to their demand that concept complexity be justified independently of an appeal to analyticity—thus, that the complexity of, say, *body*, be justified without reference to the analyticity of 'bodies are extended'. In light of what we have just seen, I think that it is clear that Kant is able to provide this independent justification. He is able to explain the phenomenon of conceptual complexity in terms of facts about representational content (in the case of empirical concepts), facts about the systematic generality of scientific cognition (in the case of geometrical concepts), and facts about the role of the understanding relative to experience as a whole (in the case of a priori concepts). He need not appeal, question-beggingly, to the analyticity of this or that proposition in order to show that certain concepts bear necessary relations to certain other concepts.

5. Identity and Clarification

Above, we saw that Kant is ambivalent as regards the status of explicitly identical judgments like 'man is man'. While suggesting in his early works that such judgments are analytic, he later comes to insist that a genuinely analytic judgment must be implicitly identical, meaning, in effect, that a genuinely analytic judgment must be (completely or partially) identical at the level of conceptual form and non-identical at the level of linguistic form. As for what might motivate this restriction, it looks as if Kant is

concerned to safeguard the epistemological significance of analytic judgments. He thinks that an analytic judgment is a judgment that succeeds in rendering its subject concept distinct. Since only an implicitly identical judgment can possibly have such an effect, only an implicitly identical judgment can qualify as analytic.

Of course, Kant is not committed to the view that a judgment qualifies as analytic just insofar as it *actually* succeeds in illuminating its subject concept. Since this would make analyticity relative to the particular acts of judgment of particular individuals, it would become impossible to identify any *proposition* as analytic. All the same, it is possible to be troubled by the notion that analyticity should be subject to an epistemological criterion, even the relatively weak criterion that I proposed above, according to which a judgment is analytic insofar as it is *potentially* clarificatory. This would suggest that being-an-analytic-judgment is a matter of satisfying formal criteria (bearing on the strictly ideal relations between concepts) and psychological criteria at once.

Fortunately, I think that Kant can present an argument as to why explicitly analytic judgments like 'man is man' fail to qualify as analytic without appealing to epistemological or psychological considerations. He can show that the concepts like *man* cannot contain themselves as constituents, and that it is not therefore meaningful to describe a judgment like 'man is man' as the product of the analysis of its subject concept.

The proposed argument is just a matter of drawing a slightly different moral from the discussion of containment above. There, I concluded that certain kinds of concepts, namely, empirical and geometrical concepts having relatively narrow extensions and a priori concepts having application within a spatio-temporal context, are constituted by

their relation to other concepts. Here, what I want to stress is that those same concepts are constituted *exclusively* by their relation to other concepts. The concept *water* does not include the idea of something's being water; it includes the idea of something being a fluid body. The concept *substance* does not include the idea of something's being a substance; it includes the idea of something existing exclusively as subject.

Of course, someone could respond here by suggesting that a different notion of containment is available to us. While admitting that the concept *water* does not contain itself in the sense of a predicate concept, they could suggest that it contains itself in the sense that any complex whole can be said to contain, or belong, to itself—as an 'improper' part. Unfortunately, this has no real basis in Kant's understanding of concepts. For Kant, as we saw above, the question of what a given concept contains is a question about the distinguishing features of the corresponding object. Thus, the concept *gold* contains the concepts of yellowness and metallicity because yellowness and metallicity are the distinguishing perceptual features of gold. In order to say that *gold* also contains itself, in this sense, we would have to say that gold is distinguished by the properties of yellowness, metallicity, *and* the property of being gold. Since this would not only be redundant, but would ascribe to gold a property that is precisely not a property, it is easy to see that the proposed line of argument will not work.

But this does not exhaust the range of possible objections. Even granted that the concept *water* does not contain itself as a constituent, someone could insist that the judgment 'water is water' is analytic in the sense that it is assertable a priori, independently of any input from experience. To press this case, however, would be to fall victim to the same kind of confusion that we have already diagnosed. It would be to

confuse what can be asserted a priori on the basis of logical laws for what can be asserted a priori on the basis of conceptual content.[142] Hence, it would be to place a judgment like 'round squares are round' on an equal footing with 'bodies are extended things' as regards analyticity.

Somewhat surprisingly, I do not think that these considerations bear on the judgment 'a = a'. The reason, very simply, is that it is possible defend the analyticity of this proposition in terms of conceptual content. In order to see how this defense might work, consider Kant's non-symbolic articulation of the judgment in question. He says that 'a = a' is equivalent to the judgment 'every whole is equal to itself'. Thus, the judgment does not say that any concept whatsoever can be predicated of itself; nor does it say that we can predicate self-identity of any concept whatsoever. Rather, the judgment says that a particular kind of object, a whole, is characterized by the relational property of self-equality. As for why we should think that this judgment spills directly out of the concept *whole*, and is in this sense analytic, this follows from reflection on what would plausibly be involved in the representation of an object *as a whole*. Since the object in question is highly general, and highly abstract, it is at least intuitively appropriate that it should be represented in terms of a property, self-equality, that is similarly abstract. It is far less intuitive to suppose that natural substances like water should be represented in terms of self-identity (which would be another way of motivating the claim that judgments like 'water is water' are analytic).

To conclude, therefore, it looks as if the prohibition against explicitly identical analytic judgments is defensible, but not in the terms that Kant himself seems to think.

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[142] According to Kant, any concept can be predicated of itself, as a matter of logic. But this follows, he says, from the fact that "logic abstracts from all content" (A598/B626).

Instead of invoking the fact that such judgments are not illuminating, or even potentially illuminating, it suffices to invoke the fact that concepts simply do not contain themselves as constituents, meaning that it is impossible in every case to derive a strictly conceptual judgment of the form 'x is x'. Where does this leave the issue of epistemological significance and analyticity? Does it mean that analytic judgments have no epistemological role to play whatsoever? On the contrary, what it means is just that the epistemological role of analytic judgments is an accidental rather than essential feature of such judgments. Being structured in the way that they almost always are, analytic judgments are almost always potentially clarificatory; but this is not a positive, distinguishing feature of analytic judgments; it is a function of the mundane fact that not all judgers will be on an equal footing with respect to all analytic judgments.

6. Already Thought

In the Chapter Two, I noted that Kant's other apparently psychological criterion for analyticity, the criterion which states that a judgment is analytic when the predicate concept is 'already thought' or 'actually thought' in the subject concept, has been subject to a series of powerful objections. I noted that Kant's contemporary Maaβ gets the ball rolling in this regard, namely, when he says that this way of characterizing analytic judgments makes the distinction between analytic and synthetic judgment relative. On Maaβ's construal, the judgment 'bodies are extended' will be analytic for me if I happen to think of extension in conjunction with 'bodies'; but it will be synthetic for someone else if that person does not already think of extension in conjunction with 'bodies'. Following Gram, I suggested that Kant could be defended against Maaβ's critique by stipulating that conceptual content *as such* does not fluctuate between individuals: the concept *body* has

the content it has, independently of the content that anyone happens to attribute to it in a particular act of judgment. But again following Gram, I observed that this line of defense seems to render Kant's psychological (or phenomenological) criterion defunct as a basis for distinguishing analytic judgments. Even if I do not 'already think' the concept *extension* in conjunction with the concept *body*, it might nevertheless be the case that these concepts are actually conjoined. In other words, even if 'all bodies are extended' seems from my perspective like a synthetic judgment, it might actually be analytic. In what follows, I want to defend and clarify Kant phenomenological criterion by showing that the scenario on which Gram's critique turns, the scenario in which a judgment seems to be synthetic but is actually analytic, is ultimately quite benign from Kant's perspective.

Staying with our example, let's suppose that for some person the judgment 'bodies are extended' seems to be synthetic. When they reflect on the concept *body*, they do not think of extension; hence, they conclude that the judgment 'bodies are extended' amplifies the concept *body* rather than merely unpacking it. Prima facie, this scenario seems quite plausible. There might even be someone for whom the judgment 'bodies are extended' seems to be false. Consider, however, what happens when we try to convert this initial judgment concerning 'bodies are extended' into a more certain claim, when we try to show that the judgment 'bodies are extended' *actually is* synthetic. What we find is that we cannot carry the proposed demonstration forward. Since we cannot represent a body independently of extension, we cannot render plausible the claim that *extension* is a concept that is extrinsic to the concept *body*. Contrary to our objectives, we are obliged to conclude that 'bodies are extended' is actually an analytic judgment.

From one angle, of course, this seems to confirm Gram's point about the phenomenological criterion. It suggests that the phenomenological criterion is insufficient on its own, and needs to supplemented by a different form of conceptual analysis—a form of conceptual analysis that draws in the objective correlates of our concepts, and inquires into the properties that are involved necessarily with those objective correlates. What I want to suggest, on the other hand, is that it is just these properties that Kant has in mind when he invokes the idea of what is 'already thought' in a given concept. When Kant asks 'what do I already think in the concept *body*?', in other words, he is not asking 'what concepts do I spontaneously associate with the word 'body'?' but rather, 'what do I think necessarily in the representation of a body?'.

What reason do we have to think that Kant understands the idea of what is 'already thought' in these terms? The best evidence comes from Kant's frequent admission that what is 'already thought' in a concept may be "confused" or "obscure" (without being any less 'thought' for that reason). Intuitively, this cannot mean the content that we *consciously* associate with a given concept is susceptible of obscurity. If it means anything, it must mean that the content that *actually constitutes* a given concept not always accessible to a person who has, and is able to apply, that concept. But since the content that *actually constitutes* a concept is the content that enters into the representation of the corresponding object, this means that what is 'already thought' in a concept is precisely that object-related content.

This suggests that the problem described by Gram is not a real problem. The fact that certain analytic judgments do not *seem* intuitively like analytic judgments does not indicate a deficiency in Kant's phenomenological criterion. It does not suggest that the

phenomenological criterion needs to be supplemented, or supplanted, by a broader criterion. The fact that certain analytic judgments might not seem to be analytic, rather, points to the relatively trivial fact that conceptual content is not always reflectively transparent: we do not always have immediate access to the content that we 'already think' in connection with a given concept.

On the other hand, there is a sense in which Kant's phenomenological criterion is too narrow. As Beck notes, the phenomenological criterion does not capture the judgments that express the 'analytic attributes' of our concepts. Thus, the phenomenological criterion captures the analytic judgment 'all triangles are three-sided', because three-sidedness is a "primitive and constitutive mark", and as such, "must always be there to be found in the thing represented" (9:61). But this criterion does not capture the no less analytic judgment 'all triangles have three angles', because the property of having three angles, according to Kant, is a not immediately present in our representation of triangles. It is necessary to 'derive' this property from the property of being three-sided.

This suggests the following amendment to Kant's phenomenological characterization of analytic judgment. What we should say, it seems, is that an analytic judgment is a judgment in which the predicate concept is already thought in the subject concept or in which the predicate concept *can be derived from* a predicate concept that is already thought in the subject. This in turn suggests that the problem raised by Beck is not fatal. Insofar as there exist analytic judgments that are not captured immediately by the phenomenological criterion, these judgments are parasitic upon judgments that *are* captured immediately by the phenomenological criterion. We cannot circumvent the phenomenological criterion entirely and devise analytic judgments that bear no relation to

what we actually think in connection with the objective correlates of our concepts. According to Kant, conceptual analysis begins necessarily with the content that is 'already thought' in conjunction with those objects.

Finally, then, what of the most general objection that can be raised in connection with Kant's phenomenological criterion, the objection that analytic judgment simply should not be defined in phenomenological terms at all, because a judgment is analytic whether or not it is grasped or formulated or realized in anyone's consciousness whatsoever? Ultimately, I think that this objection gives an accurate characterization of Kant's own position. The key to seeing this is seeing that Kant does not really attach a psychological or phenomenological meaning to the expression 'already thought'. When Kant talks about what is 'already thought' in a concept, he is not talking about what a person invariably thinks in a given concept: he acknowledges that mental content is variable and imperfect. Rather, he is talking about what a person *necessarily thinks* in connection with a concept if, by means of that concept, they are to succeed in thinking *about* the corresponding object. In this sense, it is possible to regard Kant's phenomenological criterion as symmetrical with the more obviously formal containment criterion: both define an analytic judgment as a judgment that articulates a necessary feature of the corresponding object. What the phenomenological criterion contributes, by virtue of its distinctive formulation, is ultimately just the following conditional: if one is to grasp an analytic judgment as such, then one grasps its constituent concepts in terms of the content through which those concepts have objective significance.

Summary

Before moving on to some general remarks, let's review what we have seen in this chapter.

The first issue that I tackled was that of negative analytic judgment. Noting that the idea of negative analytic judgment involves a particularly high epistemic standard, in the sense that it presupposes insight into what our terms necessarily *do not mean*, I noted that Kant could justify a negative analytic judgment in essentially the same way that he justifies an affirmative analytic judgment: with reference to the objective correlate of the subject concept. Thus, the negative analytic judgment 'no bodies are simple' can be justified with reference to the fact that bodies are given as parts of space, and so are not simple in the way that Kant understands simplicity.

Still within the arena of epistemic issues, I moved on to consider the issue of truth. I asked how Kant could justify the claim that an analytic judgment is grasped as *true* just insofar as we see that the negation of that judgment is contradictory. In response, I suggested that when Kant invokes the principle of contradiction as a means of assessing analytic truth, he presupposes that the objective reality criterion has been satisfied. He assumes that since the concept in question already agrees with its object, the relations of contradiction and necessity that can be derived from that concept will mirror the real relations in which that object is involved.

Moving on to consider truth from a semantic, or metaphysical angle, I asked whether the object-relatedness of analytic truths implies that those truths are not actually analytic truths, in the sense that they reflect facts about objects, rather than conceptual content exclusively. I suggested that this conclusion does not follow, and that in order to

see this, it is necessary to understand how the constituents of analytic truths come to be related to objects. In principle, the subject concept in an analytic judgment is related *a priori* to its objects. It is not distilled *from* the experience of those objects, but enables those objects to be given in the first place. This means that analytic truths manage to be strictly conceptual and objectively significant at once. They are strictly conceptual in that they flow immediately from the analysis of their constituent concepts, making no appeal to any actual experience of the corresponding objects; but they are objectively significant in that they convey the properties that the corresponding objects necessarily have.

The next two sections were in some ways the most difficult, and dealt, broadly speaking, with the relationship between analytic judgment and logical form. First, I asked whether analytic judgments are necessarily subject-predicate judgments as Kant seems to think. I suggested that we might be able to generate non-subject-predicate analytic judgments by interpreting analyticity, as Bolzano does, as truth preservation in virtue of propositional form. But I concluded that this strategy cannot work, because the alternate propositional forms that Kant recognizes are not susceptible of truth and falsity in the first place. While hypothetical and disjunctive judgments can be 'correct', in the sense of being assertable a priori, they cannot be true, in the strong sense of agreement with an objective correlate. Next, I asked whether logic as whole might qualify as analytic from Kant's perspective. Appealing once again to the issue of truth, I concluded, against Frege and others, that Kant does not in fact regard logic as analytic. Since the laws of logic do not bear directly on objects, it follows that neither those laws, nor the inferences derivable from them, are susceptible of truth and falsity; and since they are not susceptible of truth, it follows that they are not candidates for *analytic* truth specifically.

Returning to the issue of analyticity and subject-predicate form, I asked whether we might be able to generate a non-subject-predicate analytic judgment by following Katz, and his suggestion that what distinguishes an analytic judgment is semantic redundancy, rather than conformity to a particular, truth-preserving propositional form. Ultimately, I concluded that this strategy cannot be made to work in a Kantian context. While it is indeed possible to extract redundant, non-subject-predicate judgments from certain a priori concepts, it is not possible to extract redundant, non-subject-predicate judgments that are also true, meaning, by extension, that it is not possible to extract redundant, non-subject-predicate judgments that are *analytically* true.

Next, I considered Anderson's attempt to clarify the 'metaphor' of containment in terms of Porphyran trees. I concluded that the attempted clarification is unsuccessful, because it presupposes a view of empirical concepts that is foreign to Kant—a view according to which empirical concepts are individuated just by the substances to which they correspond, and are in that sense essentially devoid of content. Arguing that empirical concepts are actually individuated by fixed sets of predicate concepts, according to Kant, I suggested that it is this kind of relation between concepts that he has in mind when he talks about containment. Rather than a kind of provisional association between concepts, what Kant means when he says that one concept 'contains' another is that the first is actually *constituted by* the second. What I tried to do next was to answer Fodor and Lepore's challenge, and to show that the viability of such complex concepts could be established without reference to analyticity. In other words, I tried to show that a claim having the form '*X* contains *Y*' could be justified without reference to the apparent necessity of the judgment 'X is Y'. What I found is that when Kant says that one concept

contains another, it is because the object corresponding to the first concept is *necessarily represented* in terms of the general property corresponding to the second concept. Thus, the concept *gold* contains *yellowness* because gold itself is necessarily represented as yellow. Given Kant's basic assumptions about representational content, it turns out that there is no way of representing gold that does not run through the more general concept of yellowness.

This way of understanding containment then became a way of resolving the status of explicitly identical judgments, that is, of deciding whether explicitly identical judgments like 'water is water' qualify as analytic. I suggested that if the question 'what does X contain?' is to be answered by pointing to the more general concepts that are involved in the representation of the corresponding object, then there is no basis on which to claim that any concept whatsoever contains *itself*, and hence no basis on which to claim that any judgment having the form 'x is x' is analytic. This in turn became a way of resolving the status of Kant's epistemological criterion for analyticity—the criterion which states that an analytic judgment must succeed in rendering its subject concept distinct. What I found is that this criterion is superfluous. Since concepts cannot contain themselves, it turns out that analytic judgments will necessarily be non-identical at the level of linguistic form, and hence, that analytic judgments will always be at least potentially illuminating.

As for the other apparently psychological criterion that Kant associates with analytic judgment, the criterion which states that an analytic judgment is a judgment in which the predicate concept is 'already' or 'actually' thought in the subject concept, here I reached the following conclusion. I concluded that when Kant refers to what is 'already'

or 'actually' thought in a given concept, he is not referring to the content that we consciously associate with that concept, but to the content that that we necessarily (if more or less unconsciously) associate with the corresponding *object*. This conclusion, in turn, allowed me to dismiss Gram's objections concerning the psychological, or phenomenological criterion. Whereas Gram worries that what is already thought in a concept may be inadequate to its essential, analytic content, I suggested that what is already thought in a concept simply is the essential, analytic content of that concept. It is by means of its essential, analytic content that any concept whatsoever comes to be related to an object.

Conclusion

In the second chapter, I showed that if we are to reconcile Kant's criteria for analytic judgment with his examples of analytic judgment, it is necessary to consider those examples in terms of their underlying conceptual form. Thus, in order to see in what sense 'bodies are extended' conforms to Kant's identity criterion for analyticity, it is necessary to consider the subject term, 'bodies', as the expression of a complex concept that contains the concept *extension*. Otherwise, 'bodies are extended' is simply a *non*-identical judgment. At this point, having examined the idea of analytic judgment in much greater depth, and in the light of a number of potential problems, it possible to extend this conclusion. What I want to suggest is that Kant's various criteria for analytic judgment are individually coherent and mutually consistent only insofar as the *a priori objective reality* of the concepts that feature in analytic judgments is presupposed. In other words, Kant's idea of analytic judgment only makes sense if we understand that analytic judgments are necessarily judgments *about objects*. Thinking about analytic judgments in

this way allows us to make sense of the basic idea of an analytic judgment, that of a judgment that can be grasped as true just on the basis of conceptual form: since we know, a priori, that the subject concept in an analytic judgment already embodies the essential features of its objective correlate, we know, a priori, that the judgments that are extracted directly from that concept are true *of* the object in question. Thinking about analytic judgment in this way allows us to clarify Kant's own criteria for analytic judgment, thus, the requirement that the predicate concept in an analytic judgment be 'contained' or 'already thought' in the subject concept: facts about containment, as it turns out, are facts about the concepts that involved in the representation of a given object; facts about what is 'already' thought in a concept, likewise, are facts about what is necessarily thought in the representation of an object. Most importantly, this way of thinking about analytic judgment allows us to impose a sensible boundary on the kinds of judgments that can actually qualify as analytic. We can rule out non-subject-predicate judgments as candidates for analyticity, because such judgments necessarily fail to make positive, truth-evaluable assertions concerning an object; we can rule out formal-logical judgments as candidates for analyticity, because those judgments articulate the rules of thought, rather than the laws of objects; finally, against Kant's own assumptions about the scope of analytic judgment, and our own partially successful attempts to vindicate those assumptions, we can rule out judgments that bear on objects like gold and water: since those objects are not logically necessary features of reality, but contingently given natural substances, the corresponding concepts will have a posteriori rather a priori objective reality, meaning that the corresponding judgments will not be strictly analytic.

Of course, we might worry that in eliminating all of these forms of judgment as candidates for analyticity, we have produced a picture of analytic judgment that Kant would not recognize, in that it seems to characterize only a very small corner of our judicative activity. Hasn't Kant told us that "*all* judgments in which the relation of a subject to the predicate is thought" will either be analytic or synthetic (A6-6/B10-11, my emphasis)? And doesn't this suggest that analytic judgments will form a significant part of everyday cognition? What I want to propose, in response to this legitimate expectation, is that insofar as Kant leads us to think of analytic judgment as a meta-linguistic or meta-cognitive notion, meaning a notion that describes a linguistic or cognitive phenomenon that simply 'happens' in everyday run of things, then Kant gives a misleading characterization of analytic judgment. At base, analytic judgment is a methodological notion. It is the name for the conceptual interrogation that is essentially characteristic of metaphysics; and it is the name for the *product* of this conceptual interrogation, insofar as the judicative acts that are directed toward our a priori conceptual repertoire can be retained as fixed 'acquisitions'.

That analytic judgment should be understood first and foremost in terms of what it accomplishes in the context of metaphysical inquiry can be underscored by reflecting on what we have seen in the present chapter. What we have found, very simply, is that we can only understand Kant's various criteria for being an analytic judgment by reflecting on what an analytic judgment is intended to *do*. Once we know that analytic judgment has the function of unpacking our a priori conceptual repertoire, meaning the concepts that invest our spatio-temporal experience with logical form, we can see that containment, for example, is not a way of expressing the idea of linguistic or cognitive synonymy, but a

way of talking about the logical properties that are involved necessarily into the representation of particular objects.

This way of understanding analytic judgment, finally, has important ramifications as regards the kind of criticism to which Kant is genuinely vulnerable. What it suggests is that if we are to undermine the foundations of analyticity, it does not suffice to show that 'bachelors are unmarried men' is not assertable a priori. Instead, we need to show that the basic rationalist foundations of which Kant's doctrine of analyticity rests are unstable, that experience does not in fact presuppose an arsenal of concepts having fixed content. In what remains of this study, I will not try to tackle this obviously quite imposing task. What I will do is something more modest, but perhaps more instructive. Examining one of Kant's most important successors, Edmund Husserl, what I want to do is to see what happens to the idea of analytic judgment when its specifically rationalist foundations fall away. Is the idea of analytic judgment fated to become the idea of mere linguistic tautology? Or, is there a way in which analytic judgment can retain genuine metaphysical significance?

Chapter Five

Husserl's Theory of Analyticity

In the first chapter of this study, I explored the methodological context in which Kant's idea of analytic judgment is articulated. I argued that analytic judgment is best understood in relation to synthetic a priori judgments, first, as a justificatory mechanism which allows us to shore up the syntheticity of synthetic a priori judgments, and second, as a clarificatory mechanism which spells out the content of our a priori conceptual repertoire. In the subsequent chapters, I examined analytic judgment in terms of the semantic, epistemic, and logical properties that Kant attributes to such judgments. I showed that these properties can only be successfully clarified in the light of the overriding methodological role of analytic judgment (thus, in light of the results of the first chapter). For example, while it is otherwise hard to explain why Kant thinks that analytic judgments are true just by virtue of their constituent concepts, it becomes possible to explain this when we take into account the *kinds* of concepts that are at issue in analytic judgments: since those concepts are already intrinsically involved with objects, being the basic conditions of possibility for the representation *of* objects, it follows that they embody objective truths in and of themselves. Likewise, while it is otherwise hard to explain why Kant thinks that only subject-predicate judgments qualify as analytic, since many non-subject-predicate judgments seem to be appropriately tautological, or redundant, it becomes possible to explain this restriction when we take into account the basic mandate of analytic judgment: since analytic judgment is a matter of articulating the basic logical properties of objects, and since facts about objects can

only be expressed in subject-predicate form, it follows that analytic judgments *must* be subject-predicate judgments.

In light of the explanatory gains that are won when we foreground the methodological context in which analytic judgment arises, I think it is clear that we should see analytic judgment as the name of a particular kind of inquiry. Rather than seeing analytic judgment as the name of a function taking any complex concept or linguistic meaning whatsoever as an argument, we should see it as a form of metaphysical inquiry, a form of metaphysical inquiry targeting the basic logical framework within which the objects of experience are given.

Having established a clear picture of Kant's idea of analytic judgment, what I want to do at this point is to pivot to Edmund Husserl and his own thinking on the subject of analytic judgment, or analyticity more generally. As for why Husserl might be an interesting or important point of reference for us at this point, it is because he is unique in the history of post-Kantian philosophy in having taken up the genuinely Kantian notion of analytic judgment. In contrast to Bolzano and Frege, both of whom understand analyticity in terms of validity, and both of whom sideline the question of what analytic judgments are *about*, Husserl defends the idea that analytic judgments bear essentially on the formal properties of objects.

Of course, if Husserl could be seen merely as having taken over Kant's doctrine of analyticity wholesale, then there would be no particular reason to turn to his work at this point. We could simply remain with Kant, and avoid the difficulties posed by a novel terminology and a novel set of methodological presuppositions. As it happens, though, I do not think that we can see Husserl in these terms. For one, even where Husserl's views

on analyticity resonate perfectly with those of Kant, they are conveyed in far more lucid and clear-sighted terms. Whereas Kant tends to present analyticity in narrow, formalistic terms, and is correspondingly vague on the issue of its broad metaphysical significance, Husserl is quite explicit as to the nature of analytic inquiry and its place vis-à-vis other kinds of inquiry. Second, as I will try to show, Husserl makes a number of important advances on Kant. Husserl clarifies the epistemic and logical relationship between the analytic and the synthetic a priori; he reintegrates the analytic and formal logical spheres; he explains in what sense mathematics can be understood as analytic; and most importantly perhaps, he explains how we are actually to arrive at analytic knowledge.

In the sixth and final chapter of this study, I will take up these departures from Kant in detail. What I want to do in the present chapter is to lay the groundwork for this comparison. In Section 1, I rehearse Husserl's most fully elaborated account of analyticity, the one that he gives in the third Logical Investigation. After outlining the distinction that Husserl gives there between analytic and synthetic law, I show that this distinction corresponds to an ontological distinction that is pervasive in Husserl's writings: the distinction between aggregates and wholes. In Section 2, I shift from the ontological perspective of the third Investigation and take up analyticity in 'apophantic' terms, meaning in terms of propositions. I show that propositions are subject to analytic law in three respects: first, as regards the ways in which meanings can combine to form propositions; second, as regards the ways in which meanings can combine to form truth-evaluable propositions; third, as regards the ways in which propositions can combine to form theories. In Section 3, I circle back to the third Investigation to take up what Husserl calls an 'analytically necessary proposition'. Since the analytically necessary proposition

seems to come closest to what philosophers have tended to understand by 'analytic judgment', I ask whether Husserl is able to give a defensible account of such propositions. This means asking whether Husserl can appeal coherently to explicit definition, implicit definition, or to some other fact about linguistic meaning to show that terms like 'bachelor' have their meanings as a matter of necessity. What I conclude is that Husserl cannot vouchsafe a priori access to the meanings of such terms, and so cannot vouchsafe the possibility of analytic judgments in the mold of 'all bachelors are unmarried men'. Noting that this suggests that Husserl has severed the idea of analyticity from the idea of analysis, I conclude by showing that these concepts are indeed intimately related.

1. Analytic and Synthetic A Priori Law

While the theme of analyticity runs across Husserl's published and unpublished writings, undoubtedly the most comprehensive account of analyticity comes from the third Logical Investigation (specifically, the second edition of the third Logical Investigation, from 1911). By way of a point of entry into Husserl's theory, I propose to begin by examining this account, supplementing it with reference to other works and other authors where appropriate.[143]

[143] The idea of analyticity remains more of less consistent across the body of Husserl's writings. Accordingly, I will not concern myself in what follows with distinctions within Husserl's account of analyticity. As far as is possible, I will try to present a coherent picture of Husserl's idea of analyticity, one that unifies the different treatments that this idea receives in different texts. As to how we can explain the consistency of Husserl's idea of analyticity, particularly in light of the dramatic changes that his thinking undergoes in other areas, I think that this is ultimately a function of the consistency of his views on logic. For the Husserl of the *Logical Investigations*, as for the Husserl of *Formal and Transcendental Logic*, logic remains an "abstract theoretical discipline" concerned with the ideal meanings and propositional forms that enter into our judgments

Independent and non-Independent Content

The third Logical Investigation is a study of what Husserl calls 'formal ontology'.[144] By 'ontology', what Husserl means is the eidetic analysis of objects, meaning an examination of objects at the level of their pure, a priori *essence*.[145] By *formal* ontology, what Husserl means is an ontology that abstracts from the material determinations of objects and says what can be said about all objects whatsoever. This way of representing formal ontology reflects the meaning that Husserl gives to the term 'formalization' in general. Rather than a process in which we work out the features that some materially determinate set of entities have in common, Husserl understands formalization as a process wherein we imaginatively *eliminate* the material determinations of some set of entities and direct our attention to the features and properties that remain. In the 'apophantic' sphere, this means abstracting away from the particular meanings that attach to our terms and considering propositions at the level of syntactical structure. In the context of the third Logical Investigation, it means examining objects at the level of mereological structure, thus, in

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about objects (*Logical Investigations*, Vol.1, pp. 32, 82, 26). Analyticity, in turn, is represented across all of Husserl's writings as a logical concept denoting the necessary laws to which propositions and objects are subject (On the continuity between Husserl's early and later views on logic see: *Formal and Transcendental Logic*, p. 104; John Sallis, *Logic of Imagination*, p. 82).

[144] Husserl mentions formal ontology parenthetically at the outset of the third Logical Investigation, but otherwise avoids the term 'ontology'. In a footnote to the *Ideas*, he explains his reticence in this regard as driven by the 'offensive' historical connotations attached to the term. By the time of the *Ideas*, this reticence is dissipated, and Husserl retroactively classes the third Logical Investigation as an investigation in the mode of formal ontology (*Ideas*, p. 24, ftn. 8).

[145] Eugen Fink defines ontology in the Husserlian mode as an "apriori eidetic of object classes, and, more particularly, an eidetic in the naively thematic "straightforward attitude"" (Introduction to Edmund Husserl, *Introduction to the Logical Investigations: A Draft of a Preface to the Logical Investigations*, p. 4).

terms of the determinations that belong to objects just insofar as they can be characterized as wholes or parts.

Husserl begins the third Logical Investigation on the side of parts, drawing a distinction that will prove to be crucial as regards the distinction between analytic and synthetic a priori law: the distinction between independent and non-independent parts. According to Husserl, an independent part is a part that has the character of a 'piece', meaning a part that can be 'broken off' from the whole to which it belongs and presented separately. A non-independent part, meanwhile, is a part that is not separable in this sense: it is a part that "can be distinguished 'in' an object", but which cannot be presented apart from that object. Key examples of non-independent parts include color and shape, both of which can be distinguished as features or 'moments' of the wholes to which they belong, but neither of which are given as objects in their own right.[146]

Acknowledging that the term 'part' is somewhat out of place in the context of phenomena like color and shape, in the sense that 'part' tends to connote an independent, separable 'piece', Husserl proposes a terminological adjustment. Rather than speaking of independent and non-independent 'parts', Husserl proposes to frame the third Logical Investigation in terms of independent and non-independent 'contents'. This language sits comfortably with color and shape, in the sense that both can be spoken of comfortably as 'abstract contents'; more importantly, the language of contents is in keeping with the phenomenological perspective that is adopted in the third Logical Investigation. It

[146] Husserl's distinction between pieces and moments has an important historical antecedent in Brentano's closely related distinction between physical and metaphysical parts (Carlo Ierna, "Beginnings of Husserl's Philosophy, Part 2: Mathematical and Philosophical Background", p. 51; Robin Rollinger, *Husserl's Position in the School of Brentano*, p. 103).

captures the fact that the mereological relations that are of interest in this study are to be characterized from the standpoint of their givenness to consciousness.

It is worth lingering over this terminological adjustment for a moment to consider a possible objection, namely, that talk of 'content' is simply out of place in the context of ontology; that the way that things are given in conscious experience has no direct bearing on what pertains to those things *as such*. Husserl is eager to forestall this objection. What he argues is that talk of content *is* talk of objects. What the language of 'contents' does is to bring into focus the subjective arena in which objects are given and in which they alone have significance; it does not entail a shift in thematic interest toward pure phenomena or pure qualia. This is borne out by the fact that judgments bearing on 'contents' can be converted into judgments about objects: "we need only say 'object' and 'partial object', instead of 'content' and 'partial content'…to achieve an *objective distinction* freed from all relation to interpretative acts and to any phenomenological content that might be interpreted".[147]

Without forfeiting the objective significance of his analyses, therefore, Husserl reframes the distinction between independence and non-independence in the language of phenomenological content. For a content to be independent, Husserl explains, means that it can be kept "constant in idea despite boundless variation...of the contents associated with it, and, in general, given with it".[148] For a content to be non-independent, conversely, means that it *cannot* be kept constant in idea across variations of the "presentational complex" in which it is given.[149] Certain kinds of variations in that

[147] *Logical Investigations*, Vol. 2, p. 10.
[148] *Logical Investigations*, Vol. 2, p. 9.
[149] *Logical Investigations*, Vol. 2, p. 6.

presentational complex entail the alteration or the elimination of the phenomenological content in question. As an example of the first kind of content, Husserl gives the slightly macabre example of a horse's head. He notes that "the head of a horse can be presented 'on its own' or 'cut off', i.e. we can hold it in our fancy, while we allow the other parts of the horse, and its whole intuited setting, to alter and vanish at will".[150] As an example of non-independent content, meanwhile, Husserl points to the relationship between color and extension. He notes that there exists a relation of "functional dependence" between color and extension such that a change at the level of extension produces a change at the level of color. When the boundaries of an object are enlarged, the moment of color 'becomes bigger'; and when the boundaries of an object are reduced to zero, the moment of color is entirely eliminated.

Synthetic A Priori Law

Having descended to the level of a *particular instance* of non-independent content, Husserl has at the same time reached the level of synthetic a priority. He claims that relations of functional dependence like the relation between color and extension, or the relation between the intensity of a tone and its quality, amount to synthetic a priori laws. As for why Husserl might describe these relations of functional dependence as a priori laws, this is relatively easy to see: the relation between color and extension holds not just for some instances of color at some times, but for all instances of color at all times. But in what sense can these a priori laws be described as 'synthetic'? In a Kantian context, we say that a judgment is synthetic when the predicate concept "lies entirely outside of" the subject concept (A6/B10). Although Husserl puts this in more general terms—namely, in

[150] *Logical Investigations*, Vol. 2, p. 6.

terms generalize beyond subject-predicate propositional form—it turns out that syntheticity means something similar for him. According to Husserl, synthetic a priori judgments are synthetic to the extent that they are "not mere particular instances of formal-ontological truths".[151] Thus, the judgment "color cannot exist without something colored" is synthetic insofar as we cannot account for its manifest necessity by showing that it instantiates some more general logical or ontological truth. By way of explaining what *does* in fact make judgments like this true, it will be worth asking how Husserl can defend his conception of the synthetic a priori against a well-known challenge.

Schlick's Attack on the Synthetic A Priori

In an article from 1932, Moritz Schlick tries to show that Husserl's synthetic a priori laws collapse into insignificant tautologies. His strategy turns on an appeal to language use. According to Schlick:

> the meaning of a word is solely determined by the rules which hold for its use. Whatever follows from these rules, follows from the mere meaning of the word, and is therefore analytic, tautological, formal. The error committed by the proponents of the [synthetic a priori] can be understood as arising from the fact that it was not clearly realized that such concepts as those of the colors have a formal structure just as do numbers of spatial concepts, and that this structure determines their meaning without remainder.[152]

From Schlick's perspective, therefore, the proposition "color cannot exist without something colored" is straightforwardly analytic. The concept *color* contains the idea of a relation to something colored, meaning that the proposition as a whole has the structure of a tautology. Were this proposition otherwise than purely tautologous, Schlick suggests, then it could be meaningfully denied. I could speak of colors as objects in their own right without rendering myself unintelligible to others. Intuitively, however, it is clear that this

[151] *Ideas*, p. 31; Logical *Investigations*, Vol. 2, p. 21.
[152] Moritz Schlick, "Is There a Factual A Priori?", p. 169.

way of speaking would result in misunderstanding. If I were to say to someone "look at that red", my interlocutor would respond by asking me to specify the red object I have in mind. For Schlick, this gives us all the assurance we need regarding the content of the concept *color*.

From Husserl's perspective, meanwhile, Schlick's appeal to linguistic usage as a means of fleshing out concepts like *color* is illegitimate. The fact that I cannot meaningfully employ the word 'color' without implicitly affirming certain facts about color does not mean that those facts are built into the meaning of the concept. In Section 21 of the first Investigation, Husserl indicates that the question of meaning can only be settled by reference to intuition. "In order to be quite clear as to the sense of an expression (or as to the content of a concept)", he argues, it is necessary to refer our "purely symbolic meaning-intentions" to "directly intuitive presentations" and "certain cogitative elaborations and formulations of the same".[153] What does this reference to intuition reveal in the case of color? What it demonstrates, according to Husserl, is just what we have seen so far in this chapter, namely, that color is distinguishable from its material support—not in the sense of a "separately presentable" part, but in the sense of a freely variable moment. Presented with a colored object of some kind, we can always imagine the same object taking on an entirely different color. While materially interdependent, in the sense that they cannot *actually* be disjoined, color and extension are nevertheless formally distinct.

What remains now is just to affirm the same principle that underlies Kant's theory of synthetic a priori judgment, and which Kant himself inherits from Hume: the principle

[153] *Logical Investigations*, Vol. 1, p. 212; cf. Hua XXXV, p. 446.

which says that if two phenomena can be distinguished, then the corresponding concepts are distinct. Hence, because there is undoubtedly a phenomenological distinction between color and its material support, we should count the concepts *color* and *colored thing* as distinct, even if our linguistic practices strongly suggest that they are identical. What this indicates, in turn, is that if the color-proposition is necessary, there must be some non-formal, non-conceptual grounds for its necessity. Rather than pure intuition, or mere subjective custom, Husserl indicates that this necessity resides in the *essence* of color itself. [154]

Analytic Law

Having followed a path from non-independent content to synthetic a priori law, it might look as if we could pursue a parallel track en route to analytic law. That is, it might look as if we could simply circle back to independent content and work our way towards a second, distinct sphere of a priori law. As it turns out though, there is no path from independent content to analytic law, or to any sphere of law whatsoever. As Robert Sokolowski remarks, independent content serves principally as a "foil" for the idea of a non-independent content.[155] It does not project us into a unique domain of law.

Fortunately, there is another route possible, one that leads from the idea of synthetic a priori law that we have just secured. Thus, whereas we have found that synthetic a priori law is law that governs contents by virtue of the specific kinds of contents that they are, what now suggests itself is the idea of law that governs contents *independently* of the kinds of contents that they are; in other words, the idea of a law that

[154] *Logical Investigations*, Vol. 2, p. 21 (my emphasis).
[155] Robert Sokolowski, "The Logic of Parts and Wholes in Husserl's Logical Investigations", p. 541.

applies indifferently to contents just insofar as they are contents, and thus to objects just insofar as they are objects.

We already have a sense of the language in which such laws can be articulated. We know that we can describe something as a 'whole', an 'independent part', or a 'non-independent part' while leaving aside its particular material determinations. Here, by way of enlarging our terminology, it is worth noting that mereological characterizations such as 'whole' and 'part' fall under a broader heading—that of categorial form.

By categorial form, what Husserl means is the formal content that objects have over and above their pure sensuous givenness. One such example of this supra-sensuous form, as I've just suggested, is the form manifested by something insofar as it is a whole or a part. The property of being a whole or a part is straightforwardly given in the presentation of particular kinds of objects; but this property is not grounded in the sensuous particularity of those objects. Otherwise, it would not be possible to grasp as whole as a part or to grasp a part as a whole in its own right. The property of wholeness or of partness would be inscribed directly and inalienably on the surface of objects. Another example of categorial form is the form manifested by objects that stand in a particular external relation, such a 'larger than' or 'to the left of'. Again, this relation is given *with* the objects, but cannot be an immediate expression *of* the objects, since they would otherwise have no existence outside of the relation in question. A final example of categorial form is the form manifested by an object just insofar as it is given *as an object*. To be given as an object, according to Husserl, means to be given in terms of properties that are not immediately apprehensible at the level of sensuous content: it means being given as self-identical, and hence susceptible of being given repeatedly across multiple

experiences; and it means being given as a bearer of properties, hence as a thing that in some sense transcends the properties with which it is factually given.

For our purposes, what is crucial is that categorial forms, and by extension, the objects that fall under those categorial forms, are subject to laws. These are the laws that Husserl calls 'analytic'.[156] Consider a simple example. When anything whatsoever is given as an object, it is given as a bearer of properties. But it cannot be a bearer of just any properties whatsoever. In particular, it cannot accommodate contradictory properties simultaneously. An object R cannot be simultaneously P and not-P. Just insofar as it has been constituted categorically as an object, therefore, R is subject to the law of non-contradiction. Since this law applies to R independently of the class of objects to which R belongs means that it is an analytic law.

Husserl gives a more involved example of analytic law in the principle that "correlatives mutually entail one another".[157] What this principle says is that if two objects, R and S, are constitutively related, then neither object can be given in the absence of the other. R is necessarily given in conjunction with S and S is necessarily given in conjunction with R. Again, this law bears not on the sensuous or material properties of R and S, but on the categorial form that they instantiate. As such, it is applicable to any objects whatsoever that instantiate the same categorial form.

Other examples of analytic law have a more explicitly mereological character. Thus, in the third Logical Investigation, Husserl says that if something is a part, then it is necessarily given as part of a whole. This is a logical requirement that bears on the part as

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[156] Husserl notes that analytic laws "say nothing" on the question of *which* categorial forms can be constituted on the basis of "sensuous intuitions" (*Logical Investigations*, Vol. 2, p. 310).
[157] *Logical Investigations*, Vol. 2, p. 19.

such; it is not a function of the material properties of any particular kind of part. Another essentially mereological law is given in Husserl's unpublished writings on Russell's paradox. If something is a whole, Husserl explains, then it cannot contain itself as a part.[158] A final example bears on the relation that exists within a whole, between its forms and its materials: according to Husserl, "it is an analytic truth that the forms in a whole cannot function as its materials, nor vice-versa".[159]

This list of mereological relations and attendant analytic laws could be extended still further. Following Husserl, we could distinguish between immediate and mediate relations between part and whole; we could distinguish between the different 'external' relations that can obtain between parts, relations such as similarity, likeness, and position; we could talk about the relations of 'intersection' that can obtain between different wholes, namely, when they have one or more parts in common;[160] and we could describe the invariant forms that these different relations take, thus arriving at a set of strictly analytic laws. For the moment, though, our objective is just to understand what Husserl means by 'analytic law', and with the foregoing, we have made a start in that regard. What we have found is that an analytic law is a law that bears on the internal and external relations that objects sustain just insofar as they are objects; in other words, a law that applies to objects with regard only to the categorial relations in which they are involved.

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[158] Claire Ortiz Hill, "Tackling Three of Frege's Problems, Husserl on Sets and Manifolds", p. 98; cf. Claire Ortiz Hill, "Georg Cantor's Paradise, Metaphysics, and Husserlian Logic", pp. 232-3. It is easy to see how considerations of essence allow Husserl to respond to Russell's paradox. If wholes cannot contain themselves as parts, then sets cannot contain themselves as elements, and the problem posed by the set of all sets that are not members of themselves (R) cannot arise, because we cannot coherently ask whether R is a member of itself.

[159] *Logical Investigations*, Vol. 2, p. 64.

[160] *Experience and Judgment*, pp. 240-1.

Aggregate and Whole

Remaining for the time being within the domain of objects, I want to consider another way of motivating the distinction between analytic and synthetic a priori law. Rather than approaching the distinction between analytic and synthetic a priori law in terms of the distinction between independent and non-independent content, I want to try approaching the issue of analytic and synthetic law in terms of the distinction between *Inbegriffe* and *Ganzen*, or aggregates and wholes. Although this distinction is strongly correlated with the distinction between analytic and synthetic a priori law, Husserl himself declines to draw the connection explicitly.

The idea of the 'Inbegriff' originates in its broad outline with Bolzano. In Section 82 of his *Theory of Science*, Bolzano defines an Inbegriff as a 'composite idea' [zussamengesetzter Vorstellung] having no internal principle of order, meaning a complex object whose constituent parts stand in no specified relation.[161] By way of an example, Bolzano offers the scenario in which we seek to understand a certain kind of event, and we recognize that this event is brought about causally by a number of factors. In such cases, he says, we form an Inbegriff encompassing those various factors; we unify them without necessarily attributing to them an order amongst themselves. Elsewhere, expressing what amounts to a negative condition for what it means to be an Inbegriff, Bolzano notes that there is no constraint on the kinds of objects that can enter into a given Inbegriff: "any arbitrary object *A* can be combined with all the other arbitrary objects *B*, *C*, *D*, . . . into [an Inbegriff] or (to speak more correctly) already forms [an

[161] Bernard Bolzano, *Gesamtausgabe* (*Band 11,2: Wissenschaftslehre §§ 46-90*) pp. 197-8.

Inbegriff] in itself".[162] Thus, we can combine a rose with the *concept* of a rose to form an Inbegriff. The manifest heterogeneity of these objects does not preclude the possibility of an Inbegriff that encompasses both.

Husserl takes up the idea of the Inbegriff, or aggregate, in his *Philosophy of Arithmetic* from 1893. At this stage, what principally distinguishes an aggregate from Husserl's perspective is the fact that it is arbitrary, meaning that it can draw together objects that differ arbitrarily as regards their basic ontological determinations.[163] This emphasis reflects the use to which Husserl puts the idea of the aggregate in the *Philosophy of Arithmetic*. In this context, the aggregate is invoked as the concrete basis for the concept of multiplicity, and ultimately that of number.[164] As such, the relevant feature of the aggregate is precisely the fact that it lacks any criterion for membership. Why must the concept of number have its basis in the experience of such collections? According to Husserl, this is the only way that we can explain the generality of the concept of number, that is, the fact that it can be made to apply to collections of objects having no meaningful relation to one another. Only if the concept of number is originally related to a set that can take in any object whatsoever can I explain my ability to say of this bottle, happiness, and *Moby Dick*, that they constitute a collection of three things.

Of course, we might wonder whether our experience actually testifies to such collections. Most people would agree that we experience collections having relatively weak criteria of membership, such as 'all of the objects on the table right now'; but it is not as clear that we experience collections having *no* criteria of membership. In order to

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[162] Bernard Bolzano, *The Mathematical Works of Bernard Bolzano*, p. 601.
[163] *Philosophy of Arithmetic*, pp. 17, 19, 60; cf. *Philosophy of Arithmetic* ["On the Concept of Number"], pp. 314-315, 345.
[164] *Philosophy of Arithmetic*, p. 17, cf. pp. 72-77.

see that we do in fact have this experience, what we need to do is to simply shed the expectation that such experience would be passive in nature. Rather than a collection that is unified by spatial or temporal coincidence, an aggregate is constituted "in an actual act of assembly, in an act, that is, expressed in the conjunctive form of connection *A and B and C*...".[165] It is not held together by a passively apprehended connection between its constituent members, but by the "unitary interest" that "distinctly picks out and encompasses its various contents".[166] This explains why an aggregate is experienced as freely variable in its membership: the unitary interest that holds the set together is independent, in principle, from the objects toward which it is directed.[167] In consciously taking together a certain number of objects, I am tacitly aware that the set that I have constituted in thought transcends the set's initial membership.

In the interests of clarity, it is important to stress here that the members of an aggregate need not be spatially and temporally *un*related.[168] To insist on this would be to impose a criterion of membership on aggregates, which we are definitionally prevented from doing. The point is just that in taking something as an aggregate, I am essentially unconcerned with the material relatedness of its constituents. I am concerned solely with the relations that the constituents have *as* members of the aggregate, the logical or

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[165] *Logical Investigations*, Volume 2, p. 280. Carlo Ierna notes that in characterizing the notion of the Inbegriff in terms of collective combination, Husserl is drawing more from Brentano than Bolzano ("Beginnings of Husserl's Philosophy, Part 2: Philosophical and Mathematical Background", p. 45).
[166] *Philosophy of Arithmetic*, p. 77.
[167] *Logical Investigations*, Vol. 2, p. 38.
[168] As Husserl says, the members of an Inbegriff are "*possibly* 'quite disconnected and intrinsically unrelated'". Unrelatedness is not a necessary condition for something's being an Inbegriffe (*Logical Investigations*, Vol. 2, p. 38).

categorial relations that flow from the "act of assembly" that brings the aggregate into being.

This provides a suitable opening onto the idea of the whole (*Ganze*). For Husserl, a whole is a collection grounded in an "immediate bond between the representing sense-contents", rather than a bond supplied by the understanding.[169] It is a unity that is given at the level of intuition rather than the level of categorial thought.[170] Based on what we have seen so far, we will already have some sense of the kinds of unity that can obtain just at the level of intuition, prior to categorial synthesis. According to Husserl, what binds together a whole is not an "act of assembly", but the bond that exists between non-independent contents. This bond, in turn, is grounded in the species to which the non-independent contents in question belong. The color and shape of the table in front of me are bound together by the "combinations and the relations" that belong to those contents as instances of color and shape, respectively.[171]

This makes it clear in what sense the whole is correlated with synthetic a priori law. The idea of the whole is the idea of a complex, unitary object that is governed by synthetic a priori law. What about the relationship between the aggregate and analytic law? In what sense can we think of an aggregate as an 'analytic' combination? In short, the aggregate for Husserl represents the ontological strata to which analytic law properly applies. Analytic law is law that bears on collections of objects strictly *as* collections of objects.

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[169] *Logical Investigations*, Vol. 2, p. 301.
[170] *Experience and Judgment*, p. 248.
[171] *Philosophy of Arithmetic* ["On the Formal Determination of a Manifold"], p. 499.

Manifold

By way of an opening on to the next category of objects, it is worth making note of an important difference that has come to light in this section. What we have found is that synthetic a priori law governs collections that are passively given whereas analytic law governs collections that are actively constructed. Synthetic a priori law bears on collections that are given to us originally as collections, and thus collections that we are not at liberty to 'un-collect' (as we discover, for example, when we attempt to imaginatively disentangle color from extension). Analytic law bears on collections that are not given originally as collections, and thus collections that we are indeed at liberty to un-collect. This means that synthetic a priori law and analytic law 'kick in' at different moments, which is to say, at different stages in the intentional constitution of experience. Synthetic a priori law kicks in at the moment that different, mutually dependent sensuous contents are given to us. Analytic law kicks in at a later moment: once we have constituted sense contents in terms of discrete objects and grasped (*begriffen*) those objects within an initial composite structure (*Inbegriffe*).[172]

For precisely the same reason, however, analytic law extends much further than synthetic a priori law. Whereas synthetic a priori law bears just on relations between species of non-independent content, and so is bounded by the species of non-independent content that are actually given, and by the different "combinations and relations" in which those species of non-independent content can be involved, analytic law bears on aggregates, and so encompasses an indefinitely large class of collections, constituted in

[172] When it comes to *formulating* synthetic a priori and analytic laws, on the other hand, this order of priority is reversed. As we will learn in Chapter Six, the possibility of representing phenomenal content as necessarily and synthetically related presupposes the possibility of representing phenomenal content as analytically related.

terms of combinations and relations having their point of origin in the understanding. Precisely because analytic law intervenes *after* the exercise of categorial spontaneity, in other words, it has all of the indefinitely numerous products of categorial spontaneity within its jurisdiction. In order to become somewhat clearer on what those products of categorial spontaneity might look like, it will be helpful to refine our terminology somewhat.

According to the narrower sense that Husserl gives to the term, an aggregate is just a collection of objects. The objects that constitute the aggregate are drawn together by the categorial relation 'and', but they are not joined together in any particular sequence. I might take the objects A, B and C together in an act having the form 'A and B and C', but this does not establish any particular relation between A and B or between B and C.[173] From Husserl's vantage point, this means that an aggregate lacks order. In notes from the early 1890s, he defines an ordered collection as

> eine Verkettung, welche die besondere Eigenschaft hat, daß jedes Glied in Bezug auf jedes beliebige eine eindeutige Stellung im engeren Sinne des Wortes besitzt, d.h. also durch die bloße Form der unmittelbaren oder mittelbaren Verknüpfung mit dem letzteren eindeutig charakterisiert werden kann.[174]

This in turn means that an aggregate in the narrow sense is not yet a 'Mannigfaltigkeit', or manifold. Husserl explains that

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[173] Bolzano is more explicit on this point than Husserl. According to Bolzano, the claim that the elements of an Inbegriff are linked through the relation 'and' has a perverse consequence: it suggests either that every element is linked related only to two adjacent elements (e.g. B is related to A and C, because it appears in the sequence 'A and B and C…') or that the collection as a whole has a complex nested structure, as in ((((A & B) & C) & D)….). Above all, this conflicts with the way in which we encounter an Inbegriff, namely, as a kind of pile of ideas. We do encounter Inbegriffe as complex structures of elements linked by the 'and' relation (Bernard Bolzano, *Gesamtausgabe*, *Band 11,2: Wissenschaftslehre §§ 46-90*, p. 199; cf. Peter Simons, "Bolzano on Collections", p. 94).
[174] Husserl, Hua XXI, *Studien zur Arithmetik und Geometrie*, p. 93.

> eine Mannigfaltigkeit ein Inbegriff nicht bloß geeinigter, sondern auch irgend geordneter Elemente ist und andererseits nicht bloß geeinigter, sondern kontinuierlich zusammenhängender Elemente.[175]

In sum, therefore, a manifold is an aggregate which is such that every element is determinately related to every other element, either immediately or mediately. Whereas the relation between any two elements of an aggregate is unspecified, the relation between any two members of a manifold is determined. How does this relational structure come to be established? Above, I said that what relates the members of an aggregate to the aggregate itself is an "act of collection". But it is not obvious that any such *act* could succeed in establishing the relational structure that Husserl envisions for the manifold—at least for collections of more than a few objects. In other words, it is not obvious that there is a highly articulated subjective performance from which a manifold would issue forth in experience. The solution lies in seeing that a manifold is not the objective correlate of an act, but of a theory. The web of relations that are constitutive of the manifold are not determined in a single, subjective stroke, but by the axioms and propositions that are constitutive of the theory.[176] This explains why we can say of any two elements of a manifold that they are determinately related. This relation need not be determined in the sense of having been consciously thematized. As long as we are in the

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[175] Husserl, XXI, *Studien zur Arithmetik und Geometrie*, p. 96. The issue is slightly ambiguous, in that Husserl seems in other places to distinguish more sharply between Inbegriffe and Mannigfaltigkeiten. Thus, in another set of notes from the early 1890s, Husserl says that "eine Mannigfaltigkeit ist nicht ein Inbegriff beziehungsloser Elemente. Gerade die Beizehungen sind das Wesentliche und Auszeichnende gegenüber einem bloßen Inbegriff" (Husserl, *Studien zur Arithmetik und Geometrie*, p. 410). On balance, however, I think that the most textually consistent reading is the one that sees Mannigfaltigkeiten as highly articulated Inbegriffe, rather than entirely different kinds of objects. This explains, for example, why Husserl remarks in lectures from 1906/7 that a Mannigfaltigkeit is "to start with, nothing more than" an Inbegriff (*Introduction to Logic and Theory of Knowledge*, p. 84).

[176] *Formal and Transcendental Logic*, p. 93; *Logical Investigations*, Vol. 1, p. 156.

terrain of deductive or nomological theory—which is the terrain in which the idea of the manifold is developed—then it suffices that the relation be *determinable*, in the sense that it can be deduced "from the "fundamental laws' of the corresponding nomological science".[177] An example will help to make this notion slightly more tangible.

Geometry, according to Husserl, is an essentially deductive science. It does not "apprehend in individual intuitions, describe, and classify the lowest eidetic differences". Rather, geometry builds axioms on the basis of a "few kinds of fundamental forms" such as body, surface, point, and angle,[178] and then derives "in purely deductive fashion *all* shapes "existing" in space, i.e., all ideally possible spatial shapes and *all the essential relations* pertaining to them".[179] This offers a general sense of the way in which laws allow for the determination of relations. By way of a more concrete example, take the Euclidean axiom system specifically. The Euclidean axioms allow for the derivation of

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[177] *Formal and Transcendental Logic*, p. 96.

[178] Husserl presents a more comprehensive account of the constitution of geometric theory in notes from the turn of the century: "Der Ursprung der geometrischen Vorstellung vom Raume setzt bereits den Ursprung der geometrischen Grundbegriffe voraus. Denn erst durch diese Idealisierungen der ursprünglichen Begriffe von Gebilden, wie wir sie in der Anschauung finden, sind jene Quasi-Induktionen, die wir auch Idealisierungen nennen können, möglich, welche die Axiome schaffen" (Hua XXI, p. 286). Thus, geometry in the sense of a realized axiomatic theory comes to be on the basis of a two-step process of idealization: from intuition to concept, and then from concept to axioms (see also: René Jagnow, "Edmund Husserl on the Applicability of Formal Geometry", pp. 70-71).

[179] *Ideas*, p. 130 (my emphasis). According to Husserl, this is equivalent to the claim that Euclidean geometry is *complete*, in David Hilbert's sense. In other words, it amounts to the claim that every true proposition of Euclidean geometry can be proven on the basis of the axioms of Euclidean geometry (*Philosophy of Arithmetic* ["On the Transition Through the Impossible ("Imaginary") and the Completeness of an Axiom System"], p. 426). Unfortunately, like Hilbert himself, Husserl is vulnerable on this point to Gödel, who establishes that no axiom system can be complete in the stipulated sense (David Woodruff Smith, *Husserl*, p. 121; Suzanne Bachelard, *A Study of Husserl's Formal and Transcendental Logic*, p. 52, cf. Yvon Gauthier, "Husserl and the Theory of Multiplicities "Mannigfaltigkeitslehre"", pp. 124-5).

the Pythagorean theorem; the Pythagorean theorem, in turn, sets out the *essential relation* that obtains between a certain kind of shape, the triangle, and the internal angles of that shape: it says that the internal angles of any triangle whatsoever sum to 180 degrees.

If this example allows us to understand in what sense a deductive theory determines the relations between the objects belonging to the corresponding manifold, it also gives rise to a concern. In short, our example seems to have taken us outside of the domain of analytic law. Whereas the idea of the manifold was ostensibly an extension of the idea of the aggregate, thus an extension of the idea of a collection that is subject just to analytic laws, our manifold seems to be subject to decidedly *non*-analytic laws. The Euclidean axioms refer to specifically *spatial* entities, like points, lines, and circles. They are not "unconditionally universal".[180]

The key to resolving this problem lies in further reflection on what it means for Euclidean geometry be an axiomatic science. What it means is not just that Euclidean geometry proceeds on the basis of a certain set of axioms; it also means that Euclidean geometry is characterized by a general axiom *form*. Just as any collection of objects embodies an abstract categorial form over and above its materially specific elements, any set of axioms embodies an abstract axiom form over above its materially specific content.

The idea of the axiom form originates with Husserl's colleague David Hilbert. What Hilbert proposed, according to René Jagnow, was that we should view geometrical axioms not

> in the traditional sense as sentences stating fundamental facts about spatial intuition, but rather as logical forms devoid of intuitive content. Accordingly, geometric terms like 'point,' 'line,' and 'plane' did not refer to intuitable objects, but rather functioned as purely syntactic elements whose interrelations were determined by the axioms.[181]

[180] *Logical Investigations*, Vol. 2, p. 20.
[181] René Jagnow, "Edmund Husserl on the Applicability of Formal Geometry", p. 67.

This has significant implications for how we should understand geometrical inference. Instead of viewing geometrical inference as a process that runs through the particular features of space, we should view geometrical inference as a process that proceeds on the basis of pure form. In a purely formal axiomatic system, Jerrold Katz explains

> the rules of the system apply to a string of symbols on the basis of the form (or shape) of the symbols in the string and their arrangement and the instructions for converting one string into another embodied in the rule can be carried out by elementary operations of adding, deleting, substituting, and permutating symbols, themselves defined solely in terms of the form and arrangement of symbols in strings.[182]

This means that there is no reason to regard Euclidean geometry as a wholly singular theory. Since Euclidean geometry is not defined exclusively by its unique objective correlative, but by the purely formal inferential system that it brings to bear *on* its objective correlate, there exists the possibility that other geometrical theories might turn out to be formally symmetrical ('equiform') with Euclidean geometry.[183] Being perfectly formal, the axiom form of Euclidean geometry can be realized by multiple geometrical theories.[184]

This allows us to clarify in what sense the manifold in question, Euclidean space, is subject to analytic law. It is subject to analytic law not insofar as it is subject to the

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[182] Jerrold Katz, *The Philosophy of Language*, p. 25.

[183] *Philosophy of Arithmetic* ("On the Transition Through the Impossible ("Imaginary") and the Completeness of an Axiom System"), p. 410; *Formal and Transcendental Logic*, p. 140.

[184] The possibility of formal symmetry between theories naturally extends beyond this particular example. For Husserl, formal symmetry is a possibility for "purely deductive", or "mathematical" theories in general. He notes that "two mathematical theories established in different fields fully agree in form, because both proceed from basic principles and basic concepts that of course have a different meaning intensionally, but formally have completely the same constitution" (*Introduction to Logic and Theory of Knowledge*, p. 81, 168, cf. Hua XXX, p. 261; *Formal and Transcendental Logic,* pp. 95, 99, 141-2; Suzanne Bachelard, *A Study of Husserl's Formal and Transcendental Logic*, pp. 27-8, Claire Ortiz Hill, "Tackling Three of Frege's Problems, Husserl on Sets and Manifolds", p. 89, 92).

Euclidean axioms *per se*, or insofar as it subject to the materially specific theorems derivable from the Euclidean axioms, but insofar as it is subject to the Euclidean axiom *form*.[185] Neither this axiom form nor the laws of inference embodied in it make any reference to the specifically spatial features of the Euclidean manifold. They are generic laws relating to the generic features of the objects constitutive of that manifold.[186]

Ultimately, then, the situation as regards manifolds is the same as the situation as regards aggregates or objects. When anything whatsoever is constituted as an object, it comes under laws that apply to it as an object, such as the law which says that an object cannot be a substrate for mutually contradictory properties. When anything whatsoever is constituted as an aggregate, it comes under laws that bear on it as an aggregate, such as the mereological law which dictates that an whole cannot be a member of itself. Finally, when something is constituted as a manifold, meaning, as the objective correlate of a deductive theory, then it is subject to the axiom form that is constitutive of that theory.

Before concluding, it is worth acknowledging that Husserl does sometimes speak of manifolds in a looser sense. He acknowledges that manifolds are not necessarily

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[185] Husserl puts this point in more general terms in lectures from the early 1920s: "In der Mannigfaltigkeitslehre denken wir Gegenstände, und zwar in allgemeiner Weise als bestimmt durch allgemeine *Formen von Urteilen*, die für sie gelten sollen" (Hua XXXV, p. 460, my emphasis).

[186] For Husserl, there is a sense in which a manifold simply *is* a domain of purely general objects subject to purely general deductive laws. Thus, he says that "the object domain" of a deductive theory "is delimited as a certain sphere of *objects in general*…for which basic propositions of such and such *forms* hold true" (*Philosophy of Arithmetic*, p. 410, my emphasis). Elsewhere, he defines a manifold as "an “aggregate” or a “class” of objects conceived in complete indeterminacy and universality" that is "exclusively defined by the *form* of [its] theoretical connections" (*Introduction to Logic and Theory of Knowledge*, pp. 84, 107, cf. p. 82). Finally, he remarks that a manifold is a "a field which is uniquely and solely determined by falling under a theory of *such a form*, whose objects are such as to permit of *certain associations* which fall under certain basic laws of this or that determinate *form*" (*Logical Investigations*, Vol. 1, p. 156, my emphasis).

'definite' manifolds, meaning that not all manifolds are exhaustively determined by the correlative theory.[187] Certain manifolds are 'indefinite', in the sense that the correlative theory fails to determine every "configuration" that is possible within the manifold. This happens when the correlative theory is non-deductive. Thus, the manifold of pure consciousness is an indefinite manifold, because it is correlative to a non-deductive theory, namely, phenomenology. Phenomenology can deliver certain a priori truths about consciousness; but it cannot simply 'read off' the necessary features of consciousness from an initial set of axioms. Phenomenology is a "*descriptive* doctrine of the essences of the transcendentally pure experiences in the phenomenological attitude".[188]

Does this mean that indefinite manifolds are not subject to analytic law? Since they are not constituted in terms of a deductive theory, it might look as if there are no strictly general laws to which such manifolds are subject. In order to see that this is not the case, it suffices to reflect that an indefinite manifold is a *whole*, in the broadest, mereological sense of the term, and so is subject to whatever laws pertain to wholes in general. Thus, the elements of an indefinite manifold must be mutually compatible. It cannot be the case that mutually contradictory "configurations" are possible at one and the same moment. Within the domain of pure consciousness, for example, spatial things cannot be both inadequately and adequately given.

Expressed at the more intuitive level of theory, this means that theories such as phenomenology must be 'analytically non-contradictory' if they are to hang together as theories. While phenomenology cannot generate true propositions on the basis of pure 'analytic consequence', because it cannot get from premises to conclusions on the basis of

[187] *Formal and Transcendental Logic*, p. 102.
[188] *Ideas*, p. 134.

deduction alone, which is to say, on the basis of pure form, it is nonetheless obliged to respect the negative analytic conditions bearing on theoretical unity. Just as a whole *qua* whole cannot accommodate contradictory parts, a theory *qua* theory cannot accommodate contradictory propositions. We will explore analyticity at the level of theory in more detail in the next section.

2. Apophantic Analytic Law

So far, we have followed two different paths towards analytic law. By rehearsing the distinction between non-independent and independent content, we were brought to the idea of a law that governs objects independently of the kinds of objects that they are; and by rehearsing the distinction between the aggregate and the whole, we were able to refine this understanding, and to see analytic law as that sphere of law which governs objects just insofar as they have been subjected to categorial formation. With these results in hand, it is easy to come to grips with the formal definition of analytic law that Husserl offers in Section 12 of the third Logical Investigation, according to which "analytic laws are unconditionally universal propositions, which are accordingly free from all explicit or implicit assertions of individual existence; they include none but formal concepts, and if we go back to such as are primitive, they contain only formal categories".[189] Analytic laws are *universal* to the extent that they bear on all objects whatsoever, of whatever kind; and they contain only formal concepts and categories because they bear strictly and exclusively on the formal features of objects.

At this point, departing from the ontological perspective that is adopted in the third Logical Investigation, I want to approach analytic law from a rather different

[189] *Logical Investigations*, Vol. 2, p. 20.

perspective. Following Husserl's lead, I want to approach analytic law from the side of judgment rather than the side of objects. Doing so will not bring to light entirely novel analytic laws, obeying a different logic than the analytic laws that we have examined thus far: in a sense, it will simply deliver to us the same analytic laws that we have already encountered. What this change of perspective will do, however, is help us to understand what Husserl's investigation of analytic law is intended to accomplish.

Meaning

As will already be apparent from the various distinctions that we have traced over the course of this study, Husserl is not averse to characterizing conscious experience in terms of general categories. Far from vainly trying to capture a "flux of unrepeatable and incomparable individualities", he wants to circumscribe the *essential features* of conscious experience.[190] This approach extends to the study of meaning: instead of trying to record the infinitely subtle and infinitely differentiated meanings or acts of meaning to which our experience bears witness, Husserl wants to capture general "categories of meaning".

How should we understand these categories? What kinds of semantic regularities do the categories of meaning circumscribe? According to Husserl, the categories of meaning do not correspond to particular kinds of objects, like inanimate and animate objects. He suggests that the phenomenological analysis of meaning leaves to the side "everything which could give semantic forms (types, patterns) a definite relation to

[190] Edmund Husserl, "Zur Kritik an Theodor Elsenhans und August Messer" in *Aufsätze und Vorträge, 1911-1921* (Hua XXV), p. 234 (my translation).

factual spheres of being".[191] Instead, the basic categories of meaning correspond to the "fundamental concepts inherent in the essence of the proposition (*apophansis*)".[192] In other words, they correspond to the generic, formally specified elements of propositions or judgments.[193] An illuminating example comes at the outset of the fourth Logical Investigation. According to Husserl, the category of 'syncategorematic meaning' encompasses all of those propositional elements, like 'and' and 'or', that cannot signify independently of the proposition as a whole. It is opposed to 'categorematic meaning', the category which encompasses those meanings that can signify independently of an encompassing propositional whole.

As for what we can actually say about these categories of meaning, the situation is not much different than the one that pertains to the categories of conscious experience. Just as we can talk about the laws that govern, for example, the experience of spatial things, we can analyze the basic categories of meaning with an eye to the "laws of meaning" which flow from them.[194] Thus, we can talk about the laws which flow from syncategorematic meaning, and which make it the case that such meanings require supplementation in terms of other, precisely specified forms of meaning. Likewise, we can talk about the laws which flow from categorematic meaning, and which make it the case that categorematic meanings can be varied arbitrarily without compromising the unity of the proposition in which they are encountered.[195] What I want to do now is to

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[191] *Logical Investigations*, Vol. 2, p. 69.
[192] *Ideas*, p. 23.
[193] In what follows, I will use 'proposition' synonymously with 'judgment'. Accordingly, 'judgment' will not be used in the sense of the *act* of judgment; I will use it just in the sense of the abstract object that is realized *in* the act of judgment.
[194] *Logical Investigations*, Vol. 2, p. 49.
[195] *Logical Investigations*, Vol. 2, p. 63.

rehearse the three different strata at which the laws of meaning are articulated. This will mean working through Husserl's theory of pure grammar, his understanding of logic, and his theory of the possible forms of theories.

First Level: Pure Grammar

According to Husserl, the logically primary task that arises for 'formal apophantics' is that of articulating the laws that bear on *complex* meaning. We are to identify those possible combinations of meaning that conspire to form a unified meaning, and to distinguish them from those possible combinations of meaning that are "excluded by laws, and yield only a heap of meanings, never a single meaning".[196] Husserl is clear as regards the kinds of insight that this inquiry can deliver. Just by investigating the possible combinations of meaning, we will not derive any insight into the circumstances under which propositions are true or false, or the circumstances under which propositions are *possibly* true or false. According to Husserl, this investigation is revealing just as regards the requirements of "significant unity" or "purely grammatical sense".[197]

How can we distinguish between legitimate and illegitimate complex meanings? According to Husserl, this is not a matter of sorting actually given judgments into two piles. Rather, it is a matter of exhibiting the primitive forms of judgment, along with the operations that allow for the production of more complex forms of judgment on the basis of those primitive forms. Thus, it is not a matter of simply noting that judgments of the form 'Sq is p' satisfy our native sense of grammaticality; it is matter of showing that this judgment form represents a reiterative transformation of the simple predicative judgment,

[196] *Logical Investigations*, Vol. 2, p. 62, 49.
[197] *Logical Investigations*, Vol. 2, p. 49; *Formal and Transcendental Logic,* p. 220.

'S is p', and that the judgment form 'S is p' arises in turn from still more basic "operation of determining a determinable substrate, S".[198] Showing that a judgment of the form 'S or and p' is *not* a legitimate judgment, conversely, is a matter of showing that this judgment form cannot be derived from more primitive forms on the basis of any "fundamental operations" whatsoever.

By way of an illuminating aside, it is worth mentioning Yehoshua Bar-Hillel's remarks on this ambitious project. According to Bar-Hillel, Husserl's "purely logical grammar" remains tethered to 19th century grammatical categories, and so fails to deliver adequately general insights regarding meaning.[199] Instead of describing the underlying semantic ingredients of all languages whatsoever, Husserl merely describes the grammatical constituents of Indo-European languages. Even in light what we have seen so far, it is clear that this objection is misplaced. When Husserl invokes the 'predicate' of a judgment, he does not have in mind an *adjective*, meaning an element of verbal expression;[200] he has in mind the *meaning* that arises from the operation of "determining a determinable substrate."[201] Similarly, when Husserl invokes the 'subject' of a judgment,

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[198] *Formal and Transcendental Logic*, pp. 63, 52.
[199] Yehoshua Bar-Hillel. "Husserl's Conception of a Purely Logical Grammar", p. 365.
[200] James Edie, "Husserl's Conception of 'The Grammatical' and Contemporary Linguistics", p. 138.
[201] Bar-Hillel's confusion on this point is responsible for a conspicuous misreading of the following passage from the fourth Logical Investigation: "Where nominal material stands, any nominal material can stand, but not adjectival, nor relational, nor completed propositional material" (*Logical Investigations*, Vol. 2, p. 63). According to Bar-Hillel, this prohibition is falsified by the possibility of proposition-pairs such as 'this tree is green' and 'this tree is a plant', which demonstrate that nominal matter and adjectival matter can indeed 'stand' in the same place ("Husserl's Conception of a Purely Logical Grammar", p. 365). From Husserl's perspective, however, these propositions do not represent a genuine counter-example. While we can point to a *grammatical* distinction between 'is green' and 'is a plant', there is no essential *semantic* distinction between them.

he does not have in mind a noun-phrase; he has in mind the semantic correlate of an objective substrate. Since any language will presumably have *some* way of talking about objective substrates, and some way of expressing the fact that a given substrate is determined in a certain way, we may assume that these categories are meaning are universally present in all languages.[202] The point is just they are not *reducible* to language. They arise from what is, in effect, a pre-linguistic encounter with objects.

This is instructive as to how we should think about the laws that are in question here. Since these laws are not laws of grammatically defined objects, like subjects and predicates, it follows that they are not identifiable with the laws that govern the use of this or that particular language. They reflect the combinatory and transformational possibilities that belong to the meaning categories themselves, as a matter of pure *essence*.[203] These possibilities can be *inspected* at the level of language: we can glimpse the *semantic* possibility of transforming a predicative judgment into the antecedent of a hypothetical judgment in the English-language operation that places the word 'if' before a subject-predicate expression; and we can glimpse the impossibility of simply stacking dependent meanings together arbitrarily in the 'nonsensical' (*unsinnig*) quality of the

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Adjectival and substantial predicates both functional semantically *as predicates* (*Experience and Judgment*, p. 221).

[202] Husserl acknowledges that a given language might lack a grammatical formula for expressing hypothetical judgment, plural judgment, etc. But since these judgment forms are not artifacts of particular, historically contingent languages, but expressions of the "*thought forms* belonging to the essence of the proposition", it follows that they "must somehow take effect in each language" (*Introduction to Logic and Theory of Knowledge*, p. 69, my emphasis; cf. *Logical Investigations*, Vol. 2, p. 74). Unless we are prepared to suppose that the speakers of certain language simply cannot *think* in hypothetical terms, in other words, then we must assume that they have some means of conveying this meaning category in speech.

[203] *Logical Investigations*, Vol. 2, p. 62.

English sentence 'King but like or and'.[204] Husserl's point is just that the boundaries of grammatical correctness are not drawn at the level of particular languages; they are drawn at the logically prior level of meaning.

In summary, therefore, we should see this first tier of semantic analysis as a matter of articulating the formal or *purely* grammatical conditions for significant unity. This analysis is based in a systematic, eidetic examination of the basic forms of meanings and of the recursive operations to which those basic forms of meanings are subject.

Second Level: Logic

One way to understand the next level of formal apophantics is to consider a judgment form such as 'Sp is not p'. From the standpoint of pure grammar, this judgment-form is perfectly acceptable, being a legitimate, reiterative transformation of the judgment form, 'S is p'. Obviously, though, there is something problematic here. Judgments like 'the bear which is red is not red' strike us as dysfunctional in a deep sense. What is needed, it seems, is a language that will help to us express the nature of this particular dysfunction.

According to Husserl, this language lies ready to hand. He thinks that traditional logic enables to avoid those judgments that are not the "possible forms of true judgments", despite being syntactically well-formed.[205] Thus, logic enables us to recognize that 'Sp is not p' cannot for the basis of a true (or indeed a false) judgment, even though it can always form the basis of a coherent judgment. The key concept in this regard is that of contradiction. Logic legislates against judgment forms like 'Sp is not p'

[204] This can of course be seen equally clearly in the German-language original of Husserl's example: 'König aber oder ähnlich und'.
[205] *Formal and Transcendental Logic*, p. 53.

by showing that they give rise to contradiction no matter how they are filled in materially.[206]

But logic also has a positive employment. Not only does it help us to avoid those judgment forms that preclude truth, it also allows us to identify those judgment forms that *preserve* truth. It examines the relations of purely formal consequence that exist between judgments by virtue of syntactical structure alone, thus, the relation of consequence which allows us to derive 'A is C' from the judgments 'A is B' and 'B is C', and which makes it the case that 'A is C' is necessarily true if both 'A is B' and 'B is C' are true.[207]

Importantly, logic in the traditional sense cannot tell us that any judgment *actually is* true. Especially in his later writings, Husserl is insistent that the question of truth draws in "supplementary conditions" having nothing do with formal, syntactical structure. These supplementary conditions "lie on the subjective side and concern the *subjective characteristics of intuitability, of self evidence* and the *subjective conditions of its attainment*".[208] What logic provides are the "negative conditions of the possibility of truth", along with the deductive tools necessary in order to explore and extend the truth-preserving relations of consequence that exist between different judgments.

Third Level: The Theory of Theories

The move from logic to the next and final level of formal apophantics does not reflect a limit on the extent of possible logical insight so much as a broadening of thematic

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[206] What traditional logic cannot legislate against is "material countersense", meaning an incompatibility at the level of specific propositional content (*Formal and Transcendental Logic*, pp. 327, 65). Noam Chomsky's famous example 'colorless green ideas sleep furiously' serves as a fitting example of what Husserl has in mind here.
[207] *Formal and Transcendental Logic*, pp. 332, 53.
[208] *Experience and Judgment*, pp. 17, 21.

interest. Whereas logic in the narrow sense examines particular judgment-forms, the third level of formal apophantics examines "judgment-systems in their entirety". Whereas logic sets bounds on the on the kinds of judgment-forms that occur *within* a theory, the pure theory of theories sets bounds on possible forms of deductive theories. This examination of the a priori constraints on possible deductive theory-form does not proceed in piecemeal fashion. Husserl is not proposing to work through a series of theory forms and to determine individually whether they are possible or impossible. Rather, Husserl approaches this task in the same way that he approaches the theory of pure grammar: he proposes to develop a systematic representation of the universe of deductive theory forms. Supposing that a given theory form can be shown to belong within this universe of theory forms, it follows that it is possible.

According to Husserl, this ambitious project is already in some sense underway: mathematics already seeks to grasp mathematical theories at the level of pure form and to understand the relations between formally defined theories. Thus, Riemannian geometry examines the relations between different geometrical theories (or geometrical theory forms) relating to manifolds of different degrees of curvature.[209] Likewise, pure mathematics examines the relation between the different 'arithmetics' (or arithmetical theory forms) relating to different kinds of number, for example, between the arithmetic of cardinal numbers and the arithmetic of rational numbers. What do these investigations reveal? In the first case, we discover a "systematic interconnection" between geometric

[209] *Logical Investigations*, Vol. 1, p. 157; *Philosophy of Arithmetic* ["On the Transition Through the Impossible ("Imaginary") and the Completeness of an Axiom System"], p. 410.

theory forms.[210] We find that the form of a geometric theory evolves in a certain uniform fashion as the curvature of the corresponding manifold is varied. In the second case, we discover that the theory form of cardinal arithmetic in 'contained' in the theory form of rational numbers. The latter includes the former as a special case.[211]

These two cases illustrate the approach that will characterize the pure theory of deductive theories once that theory is taken up self-consciously in the context of philosophy. On the one hand, Husserl envisages the construction of a "definite, ordered procedure" that will enable us to pass from one possible theory form to another by "varying their basic determining factors".[212] On the other hand, he speaks of "ranging" each formalized deductive theory "in more comprehensive forms or classes of forms".[213] Since deductive theories are axiomatic theories, for Husserl, this means exhibiting the relations of inclusion that that exist between axiomatic theory forms, and bringing to light general *types* of axiomatic theory forms.

As for whether we can get beyond particular types of deductive theory, Husserl speaks about a "highest theory, which would comprise all possible forms of theories as mathematical particularizations — accordingly, as *deducible*".[214] Thus, he thinks that it possible to isolate a maximally generally deductive theory form, and to identify a series of operations that will allow us to deduce *every other* possible theory form on its basis. This highest theory form would embody the most general a priori constraints on the range

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[210] Husserl elsewhere speaks of the "lawlike order of the forms of theories" (*Philosophy of Arithmetic* ["On the Transition Through the Impossible ("Imaginary") and the Completeness of an Axiom System"], p. 411).
[211] Claire Ortiz Hill, "Tackling Three of Frege's Problems, Husserl on Sets and Manifolds", p. 3
[212] *Logical Investigations*, Vol. 1, p. 155.
[213] *Logical Investigations*, Vol. 1, p. 157.
[214] *Formal and Transcendental Logic*, p. 98.

of possible deductive theory-forms. It would spell out in the most general terms the ways in which propositions can and cannot come together to form deductive theories. Supposing we can show that any apophantic law whatsoever can be considered analytic, then it is easy to see why the laws flowing from this maximally general theory would warrant that designation.

Judgment and Analyticity

By way of getting clearer on the relationship between formal apophantics and analyticity, let's summarize what we have seen in this section. What we have seen is a three-fold distinction between the different kinds of laws that bear on judgments. The first set of laws prescribes the formal features that any judgment must have in order to be a proposition. These laws are articulated in terms of familiar grammatical categories, but rest on pre-grammatical categories of meaning. The second set of laws determines the ways in which judgments must be structured in order to be susceptible of truth and falsity. These laws allow us to distinguish those propositional- and argument-forms that generate contradiction and those forms that preserve truth. The third set of laws determines the ways that judgments can come together form deductive theories. Insofar as these laws allow us to grasp deductive theory at the level of pure form, they allow us to understand the ways in which different deductive theories, relating to different object-domains, are related to one another.

What we want to know now is why any domain of apophantic law should qualify as analytic. One possible answer might be to say that the laws in question bear on all judgments whatsoever, and so are analogous to the 'ontological' analytic laws that we have already examined. The ontological analytic laws would apply to all objects just

insofar as they are objects; the apophantic analytic laws would apply to all judgments just insofar as they are judgments. Unfortunately, this cannot be the story of why Husserl's apophantic laws are analytic. The reason is that it opens the door to indefinitely many categories of analytic law. It suggests that for every kind of thing, there is a distinct set of analytic laws, thus, that there is a set of analytic laws that govern mammals just insofar as they are mammals, a set of analytic laws that govern basketball players just insofar as they are basketball players, a set of analytic laws that govern inhabitants of Cleveland just insofar as they are inhabitants of Cleveland, etc.

The solution to this problem depends on seeing apophantic analytic law as more than merely analogous to ontological analytic law. It depends on seeing these forms of analytic law as two different expressions of what is essentially one sphere of law. This in turn is a matter of seeing judgment and object as correlative notions.

We have already seen a glimpse of this correlativity in the discussion of content above. There, we learned that talk of content is ultimately equivalent to talk of objects; what the shift in registers accomplishes is simply a shift in perspective, from objects themselves to the subjective medium in which they are given. Here, much the same thing applies: to talk in terms of judgments is not to abandon objects; it is to thematize the "semantic medium" in which objects are given.[215] To talk directly about objects, conversely, is not place oneself outside of the domain of judgment; it is just to *decline* to thematize the arena in which objects alone "make their appearance", in which they alone "have being for us".[216] Of course, the correlation between judgment and object might still

[215] Bernet et. al, *Introduction to Husserlian Phenomenology*, p. 50; cf. *Introduction to Logic and Theory of Knowledge*, p. 72.
[216] *Formal and Transcendental Logic*, pp. 78-9, 120; *Husserliana XXXV*, pp. 449-50.

be imperfect if there could be judgments having nothing whatsoever to do with objects. According to Husserl, though, it is in the nature of judgments to be *about* objects. He explains that "wherever an activity of judgment, an activity of thought of any kind, explicit or not, comes into play, objects must already be present in mind, either in an empty way or as intuitively self-given; every activity of thought presupposes pregiven objects".[217]

What we want to know now is whether this relation is merely external in nature. Granted that a judgment necessarily targets an object, and that an object is necessarily given in judgment, it might still be the case that judgment and object are essentially distinct. According to Husserl, this is not the case: he maintains that we can draw significant structural parallels between judgment and object. The most obvious parallel is the one that runs between the grammatical subject and the object: just as the subject is a pole around which predication can accrue, the object is a pole around which properties can accrue.[218] Further parallels can be brought out through 'nominalization', that is, by means of that operation whereby a proposition or a "partial form distinguishable in the proposition" is converted into nominal form. Take for example 'S is p'. Nominalized, this proposition has the form 'that S is p'. The idea *that* some S is p, in turn, yields the ontological category *state of affairs*. By way of another example, take the element 'is p' from the same proposition. In nominal form, according to Husserl, this propositional element has the form 'being p'. The idea of something's being p, in turn, gives us the ontological category *property*. Finally, take the plural judgment 'S and R'. In nominal

[217] *Experience and Judgment*, p. 19; see also: pp. 14, 78.
[218] He notes that "all logic would come to an end if the concept "object" would not be conceived in as broad a sense as this equivalence demands" (*Introduction to the Logical Investigations*, p. 26).

form, this comes out as 'that S and R'; and this in turn represents a thematization of plurality. It gives us the ontological category of *multiplicity*, or that of the *set*.[219]

In short, therefore, what nominalization shows us is that judgment and object are intertwined at the level of essence. Far from standing in a merely external relation, judgment and object are symmetrical at the level of their internal, constitutive determinations. This in turn has important implications for the formal inquiry that is targeted at the judgment and the object, respectively. What it means is that formal apophantics and formal ontology "must be held to be a single science".[220] The categories that emerge from the formal study of the judgment are ultimately identical with the categories that emerge from the formal study of the object. If we distinguish between formal apophantics and formal ontology at all, according to Husserl, we do so merely to distinguish the different "point[s] of view" that can be taken with respect to one and the same domain.[221]

The identity of formal apophantics and formal ontology can be brought out quite forcefully with reference to the threefold distinction that Husserl draws within formal apophantics. As several authors have noted, this distinction corresponds to a symmetrical distinction within formal ontology. Thus, Husserl's pure grammar corresponds to a "morphology of the formal objective categories", such as object, state of affairs, unity,

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[219] *Ideas*, p. 238. In a recent monograph, Burt Hopkins suggests that Husserl is less than clear on the mechanics of nominalization. Husserl does not explain, for example, how "the plurality as a singular logical object" comes to be constituted on the basis of "plural consciousness" (Burt Hopkins, *The Origin of the Logic of Symbolic Mathematics: Edmund Husserl and Jacob Klein*, p. 445).
[220] *Formal and Transcendental Logic*, p. 111.
[221] *Experience and Judgment*, p. 12.

multiplicity, number, relation, etc.[222] Whereas pure grammar tells us what formal features a judgment must have in order to be a judgment, ontological morphology tells us what formal features an object must have in order to be an object, what formal features a state of affairs must have in order to be a state of affairs, etc. At the next level up, Husserl's notion of logic corresponds to the formal-ontological investigation of the being and non-being of objects and states of affairs in general. Whereas logic tells us what formal features a judgment must have in order to be susceptible of truth and falsity, formal ontology tells us what formal features an object or state of affairs needs to have in order to be an object. Finally, Husserl's theory of deductive theories corresponds to the formal-ontological investigation of the manifold. Whereas the *apophantic* theory of deductive theories discovers systematic connections between different kinds of deductive theory, the ontological theory of manifolds discovers systematic connections between different kinds of manifold. It finds, for instance, that a "variation of curvature makes the various sorts of space-like manifolds pass into one another".[223]

Finally, therefore, we are in a position to answer the question we flagged above: the question of why any domain of apophantic law whatsoever should qualify as analytic. The answer is not that apophantic law applies to all judgments whatsoever. As we learned, this particular kind of universality does not get us as far as analyticity. Rather, the answer is that apophantic analytic law is effectively equivalent to ontological analytic law: the laws that govern judgments are symmetrical to the laws that govern objects. These laws are framed differently, in terms of different kinds of concepts: apophantic

[222] Bernet et. al, *Introduction to Husserlian Phenomenology*, p. 48; cf. Stefania Centrone, *Logic and Philosophy of Mathematics in the Early Husserl*, pp. 111-2.
[223] *Logical Investigations*, Vol. 1, p. 157.

analytic laws are framed in terms of judgments, and ontological apophantic laws are framed in terms of formal-ontological categories.[224] As with formal apophantics and formal ontology more generally, however, this is a difference of point of view rather than a difference of domain. Apophantic analytic laws deliver universal truths about objects *from the perspective of judgment*. They articulate the formal features that belong to all objects whatsoever insofar as those formal features are reflected in the judgments that we bring to bear on objects.

To conclude, it is worth making note of two qualifications that Husserl appends to his discussion of apophantic analytic law in the third Logical Investigation. First, while stressing the organic link between apophantic analytic law and ontological analytic law, he notes that the former is "narrower" than the latter. Second, and perhaps in reference to the first qualification, he tells us that apophantic analytic law is only partially equivalent to ontological analytic law. What should we make of these qualifications? At the risk of glossing over a nuance in Husserl's theory, I think that it is best to simply dismiss them. The reason for this comes from Husserl's later work, *Formal and Transcendental Logic*. There, after noting that the relationship between formal apophantics and formal ontology is not actually taken up in the *Logical Investigations*, Husserl says that there is a "perfect correlation" between these two modes of inquiry.[225] Since this implies that there are no ontological laws that lack apophantic counterparts, I conclude that what we have, ultimately, is a single set of analytic laws.

[224] *Logical Investigations*, Vol. 2, p. 72.
[225] *Formal and Transcendental Logic*, pp. 86, 111.

3. Analytically Necessary Propositions

Having explored analyticity in the context of formal ontology and formal apophantics, I want to shift the discussion at this point to a less austere plane. With reference to Husserl's account of 'analytically necessary propositions', I want to see what Husserl has to say concerning the possibility of analytic judgments that depend in some sense on their determinate, material content. In effect, I want to see whether Husserl can explain why judgments like 'bachelors are unmarried men' should qualify as analytic, in spite of the widespread consensus that no such explanation can be given.

Husserl tells us what he means by an 'analytically necessary proposition' in Section 12 of the third Logical Investigation. According to Husserl:

> We may define *analytically necessary propositions* as propositions whose truth is completely independent of the peculiar content of their objects (whether thought of with definite or indefinite universality) and of any possible existential assertions. They are propositions which permit of a *complete 'formalization'* and can be regarded as special cases or empirical applications of the formal, analytic laws whose validity appears in such formalization.[226]

In other words, an analytically necessary proposition (ANP) is a proposition that contains non-formal concepts but which is nevertheless reducible to a strictly formal, analytic law (AL). It is a necessary truth that has material and possibly existential content, but which depends for its truth just on the formal content "in virtue of which it empirically specifies" some analytic law.[227] The test for such propositions is formalization, which, in this context, means the substitution of "indefinite expressions" like A, B, and C, for terms like 'dog', 'cat', and 'car'. Supposing that the truth of a given judgment survives this process of formalization (supposing, in other words, that it is formalizable *salva veritate*) then we can conclude that it owes its truth to its formal structure alone.

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[226] *Logical Investigations*, Vol. 2, p. 21.
[227] *Logical Investigations*, Vol. 2, p. 21

Husserl offers two examples of such propositions, alongside the purely formal laws that they are said to instantiate:

ANP: the existence of this house includes that of its roof, its walls and its other parts
AL: the existence of a whole W (A, B, C...) generally includes that of its parts A, B, C...

ANP: There cannot be a king (master, father) without subjects (servants, children) etc.
AL: If a *certain A* stands in a *certain* relation to a certain *B*, this same *B* stands in a certain *corresponding* (converse) relation to that *A*.

Though the first of these two examples is more transparent than the second, the logic of both seems relatively clear. Since the meaning of 'house' already includes a reference to a roof, walls, and other parts, the proposition as a whole has the structure of the tautological, purely formal law with which it is paired. Likewise, since the meaning of 'king' already includes the idea of a relation to subjects, and since the meaning of 'subjects' already includes the idea of a relation to a king, this second proposition has the structure of the pure relational law with which it is paired. Both propositions are true "independently of the peculiar content of their objects" in the sense that they are true just on the basis of their underlying formal structure. Any other proposition having the same formal structure as either would also come out as true.

Note, however, that I have yet to discharge a crucial assumption. I have suggested that the house-proposition is formalizable salva veritate because the term 'house' contains a reference to a particular set of parts; and I have suggested that the king-proposition is formalizable salva veritate because the term 'king' contains a reference to 'subjects' and vice versa; but I have not shown that these terms actually do contain the references in question. Certainly, as a matter of everyday linguistic practice, we would be inclined to

affirm these relations of containment. If we were told of a house without a roof or walls, we would probably deny that a house was actually at issue; and if we were told of a king whose rule did not extend over any subjects, then we would perhaps deny that a king was at issue. As we learned in the third chapter, however, such linguistic intuitions are not sufficient for analyticity. In the wake of Quine, the proponent of analytic judgment needs be able to claim *a priori* insight into the meaning of her terms. Thus, we need to be able to say *a priori* that 'house' means a thing with a roof, walls, and other parts; and we need to be able to say a priori that 'king' means a thing that entails the existence of a subject. Otherwise, we are not entitled to the truth-preserving formalization that Husserl proposes. We cannot replace the term 'house' with the complex variable 'W (A, B, C...)' because we do not know that the term has any content whatsoever, let alone precisely the content that appears on the right side of the proposition; and we cannot replace the term 'king' with an indefinite 'A' that is internally related to an indefinite 'B', because we do not know that the term 'king' embodies any relation whatsoever, let alone a relation to the object on the right side of the proposition.

This suggests two possible courses of action. On the one hand, we can seek out examples of analytically necessary propositions that do not depend on our undischarged assumption; on the other hand, we can attempt to discharge this assumption ourselves: we can try to explain on Husserlian grounds why the meanings of certain materially determinate terms should be accessible a priori. The first route is the one taken by Stefania Centrone. In her discussion of analytically necessary propositions (which she calls 'impure analytic truths') she leaves Husserl's examples to the side, and offers the

judgment 'if Socrates has both courage and wisdom then he has courage' in its place.[228] Since the truth of this proposition is preserved even when we replace its constituent terms with simple variables ('if S has C and W, then S has W') it follows that it is not vulnerable to Quinean objections. We do not need to know anything whatsoever about the meaning of 'Socrates' in order to see that the proposition has the structure of an analytic law.[229] In order to see whether we should follow Centrone in this regard, and thus rule out of consideration a potentially large class of analytic judgments—namely, analytic judgments that depend for their analyticity on the non-articulated content of their constituent terms—it is worth trying to see if the second route can be made viable. In other words, it is worth trying to see if Husserl can defend the possibility of a priori access to materially determinate terms like 'house' and 'king'.[230] The best place to start, perhaps, is with the same clarificatory process that allowed us to resolve the status of Husserl's synthetic a priori judgments.

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[228] Stefania Centrone, *Logic and Philosophy of Mathematics in the Early Husserl*, p. 117. This is consistent with the view that Husserl's examples in the *Logical Investigations* are designed for ease of comprehension, not to withstand serious scrutiny (Suzanne Bachelard, *Husserl's Formal and Transcendental Logic*, p. 7; James Edie, "Husserl's Conception of 'The Grammatical' and Contemporary Linguistics", p. 138)

[229] Guillermo Rosado Haddock makes a similar move at this juncture. He claims that for Husserl, judgments like 'all bachelors are unmarried men'—meaning judgments that depend for their analyticity on the underlying semantic structure of their constitutive terms—are not actually candidates for analyticity, and that Husserl is therefore out of the range of Quine's critique ("Husserl on Analyticity and Beyond", p. 134).

[230] Precisely this kind of examination is lacking in Tommaso Piazza's analysis of the house-proposition. Piazza simply assumes without further ado that the house-proposition is reducible to the formal statement: 'The existence of G (a, b, c, d) implies the existence of a, b, c, d' (*A Priori Knowledge: Toward a Phenomenological Explanation*, p. 159). To my mind, however, this is to leave dangling the crucial question of how we can know *a priori* that the term 'house' contains any constituents whatsoever, let alone precisely the constituents that Husserl attributes to it.

Meaning

Above, I noted that for Schlick, Husserl's putatively synthetic a priori propositions are better regarded as simple tautologies. 'Color cannot exist without something colored' does not posit a necessary relation between two essentially disjoined phenomena; it spells out the "rules which hold for [the] use" of the term 'color'. By way of a response to Schlick, I noted that the appeal to language use does not settle the question of meaning from Husserl's perspective. What settles the question of meaning, rather, is intuition. Only insofar as we consult the "directly intuitive presentations" that correspond to the term 'color' are we in a position to clarify the meaning of that term.

In the present case, unfortunately, it is not clear that this strategy can work. Whereas it is arguably possible to show by these means that 'color' does not entail reference to 'something colored', it is impossible to show by the same means that 'house' entails reference to 'roof', 'walls', and 'other parts', or that 'king' entails reference to 'subjects'. The reason for this becomes clear when we attempt to carry out the proposed demonstration.

Simplifying Husserl's example somewhat, suppose that I want to justify the analytic status of the judgment 'the existence of this house includes the existence of a roof'. Proceeding as I did above, I begin by holding the term 'house' up to the light of intuition. I secure a presentation of a house, and I try to show by means of imaginative variation that this presentation necessarily includes a roof. This means imaginatively removing the roof from the overall presentation of the house, and asking whether the object that remains is a house. If the object that remains is a house, then we can conclude that the meaning of 'house' *does not* include the idea of a roof, and that the judgment in

question is a synthetic judgment concerning a particular house. If the object that remains is not a house, on the other hand, then we can conclude that the meaning of 'house' *does* include the idea of a roof, and that the judgment in question is analytic.

The problem is that the demonstration just rehearsed does not actually allow me to decide whether a house without a roof remains a house. Intuition can tell me that color requires extension, because it bears witness to the fact that color simply disappears when extension is reduced to zero; but intuition cannot tell me a house requires a roof, because it discovers no phenomenologically meaningful distinction between a house with a roof and a house without a roof. On both sides, we are given a perfectly coherent presentation of an object.[231]

The prospects for the proposed method of meaning clarification grow even more faint in the case of Husserl's other examples. In short, it is simply impossible to see how an appeal to intuition could vindicate the claim that a king is necessarily related to subject, or that a father is necessarily related to a child. These relations simply do not show up at the level of intuition; they are essentially social relations that are invisible to anyone who does not participate in the social and linguistic context wherein they have reality.

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[231] Robert Sokolowski spells out the general mereological principle underlying this point. He notes that one simply does not meet with a priori relations once one leaves "the necessary logic of moments and wholes and enters the factual, contingent structure of pieces and wholes" ("The Logic of Parts and Wholes in Husserl's Logical Investigations", p. 546). What I want to stress is the way that these mereological principles bear on the question of meaning: whereas it is possible to sharply delineate the meaning of 'color' in terms of intuition, because this term corresponds to a moment, and is thus related in lawlike fashion with a corresponding whole (*Ganz*), it is not possible to sharply delineate the meaning of 'house' in terms of intuition, because this term corresponds to a particular aggregative whole (*Inbegriff*), which, as such, bears only contingent relations to its constitutive pieces.

Language

How can we show, therefore, that the meaning of 'house' entails the idea of a roof, walls, and other parts, and that the meaning of 'king' entails the idea of a relation to subjects? Surprisingly, given the response to Schlick that we have constructed on Husserl's behalf, Husserl seems to be inclined to refer this question to language. He thinks that the relations in question are a matter of specifically linguistic entailment. This is suggested by a passing remark from the fifth Logical Investigation, in which Husserl evokes one of his earlier examples of analytically necessary propositions. According to Husserl:

> pleasure without anything pleasant is unthinkable. And it is unthinkable, not because we are here dealing with correlative *expressions*, as when we say, e.g., that a cause without an effect, or a father without a child, is unthinkable, but because *the specific essence of pleasure demands a relation to something pleasing*.[232]

Thus, whereas the necessary relation between 'pleasure' and 'something pleasing' is a function of the essences to which those terms correspond, the necessary relation between 'father' and 'child' is a function of the terms themselves. There exists a relation of mutual entailment between these terms.

Evidently it is this relation of mutual entailment that explains the analyticity of 'there cannot be a father without a child' from Husserl's perspective.[233] Rather than a relation between the essence of fatherhood and the essence of childhood, what gives this proposition the structure of an analytic law is a relation of mutual entailment between the terms 'father' and 'child': the term 'father' is subject to a rule such that we cannot predicate

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[232] *Logical Investigations*, Vol. 2, p. 108 (my emphasis).

[233] Indirect support from this interpretation comes from Husserl's account of why the judgment 'color cannot exist without something colored' is *not* analytic. According to Husserl, "'color' is not a relative expression, whose meaning includes the idea of a relation to something else". Supposing it *were* an analytic proposition, in other words, then the relation between 'color' and 'something colored' would be built into the terms themselves. It would not be necessary to refer those terms to their intuitive correlates.

'being without a child' of that term, and the term 'child' is subject to a rule such that we cannot predicate 'being without a father' of that term. When we say that 'there cannot exist a father without a child', we are simply articulating these restrictions on possible predication.

By making room for one-way relations of linguistic entailment, it now becomes possible to account for Husserl's other example of analytically necessary truth. Thus, if we suppose that the term 'house' is subject to a law such that we cannot predicate 'being without a roof' of it, then we can explain why 'there cannot exist a house without a roof' comes out as analytic, according to Husserl. Instead of trying to show that this is a function of the necessary features of actual, intuitively given houses, we can refer this fact to the constitutive, inter-linguistic relations in which the word 'house' is involved.

The overriding question is whether this appeal to linguistic relations is legitimate. Granted that the existence of a necessary constitutive relation between the words 'house' and 'roof' would allow us to account for the analyticity of the corresponding proposition, what we want to know is whether the possibility of any such constitutive relations can be coherently entertained.

The first problem that arises in this regard is one of internal consistency: whereas the category of synthetic a priori judgment depends on the claim that word-meanings are determined strictly by their objective correlates, we are now asked to entertain the notion that word-meanings are determined by their relations with other words. Fortunately for Husserl, this inconsistency is defensible. What it amounts to is a principled and quite routine distinction between theoretical and non-theoretical terms. Terms like 'color', 'spatial thing', and 'pleasure' are theoretical terms referring to phenomenologically basic

elements of experience; like the theoretical terms operative in any area of science whatsoever, they demand to be determined precisely and exclusively on the basis of their respective correlates. Terms like 'house', 'king', and 'father', on the other hand, are non-theoretical terms referring to contingent, socially constituted elements of experience; as such, they actually cannot be determined just on the basis of their respective correlates. Rather, as intuition suggests, and as Husserl's talk of relative and correlative expressions confirms, these terms are to be determined on the basis of their relations to other terms.

What we want to know at this point is whether any such relation holds with necessity. Can we say categorically that 'house' *means* a thing that has a roof, or that 'king' *means* a thing that is related to subjects? The most obvious way to show this would be to show that these terms get their meanings from explicit definition. Unfortunately, except for the fact that the terms 'house' and 'king' are "logically composite", and so meet the most basic condition that Husserl associates with definability,[234] there is no real reason to think that such terms get their meanings from explicit definition. From Husserl's perspective, definition is not a precondition for the kind of non-systematic, non-theoretical discourse that would include terms like 'house' and 'king'; definition is a relatively exceptional methodological device that is employed just in the context of the mathematical sciences.[235] It has the function of precisely coordinating a certain set of terms with a certain set of objects, thus of establishing the parameters within which

[234] *Philosophy of Arithmetic*, pp. 124-5, 101.
[235] *Logical Investigations*, Vol. 1, p. 23; *Logical Investigations*, Vol. 2, pp. 28-9, 53; *Introduction to Logic and Theory of Knowledge*, p. 79. Husserl notes in several places that phenomenology makes no essential use of definitions, that it proceeds, rather, on the basis of description (*Introduction to the Logical Investigations: A Draft of a Preface to the Logical Investigations*, p. 60; *Ideas*, pp. 7-8).

subsequent scientific inquiry will unfold.[236] (As for whether we might seize on terms that *are* explicitly defined in order to ground materially determinate analytic judgments, this prospect to turns out to be illusory. According to Husserl, what happens in the course of a scientific inquiry is the progressive refinement of our initial founding definitions, and thus a progressive illumination of the objects coordinated with those definitions.[237] While Kant thinks that definitions in natural science remain static, Husserl thinks that definitions in science remain open to the possibility of change).[238]

If we cannot show that terms like 'house' and 'king' are subject to explicit definition, perhaps we can show that they are subject to *implicit* definition. This would mean showing that these terms get their meanings from our accepting as true certain propositions containing those terms. Thus, we could try to show that the word 'house' gets its meaning from our accepting as true a judgment like 'a house is a structure with a roof, walls, and a door'; and we could try to show that the word 'king' gets its meaning from our accepting as true a judgment such as 'a king is someone who rules over people called subjects'. Supposing that we succeeded on either front, then we could claim with some plausibility that 'house' is necessarily related to 'roof', and that 'king' is necessarily related to 'subjects'. On this picture, the meaning of 'house' would be determined by the judgment

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[236] *Logical Investigations*, Vol. 2, p. 225. There is an echo here with Kant, and his claim that definitions in the context of empirical science have a designative function, meaning that they are intended just to fix the relevant objects of inquiry, not to exhaustively determine those objects.

[237] *Logical Investigations*, Vol. 2, pp. 12, 41; *Philosophy of Arithmetic*, p. 414; Dagfinn Føllesdal, "Husserl and Gødel on Mathematical Objects and our Access to Them", p. 342.

[238] A still more basic obstacle to this reading is that Husserl does seem to think that the examination of a definition can meaningfully be understood as 'analysis' (Hua XL, pp. 348-9). Thus, even if definitions could be expected to remain static, they could not serve as the basis for analytic judgments.

that predicates *having a roof* of houses. The claim that some particular house lacked a roof would count as a contradiction in terms, or as an equivocation on the term 'house'.

Unfortunately, I do not think that implicit definition will take us as far as necessity. The reason for this is not that implicit definition is untenable.[239] The reason, rather, is that even if a proposition P implicitly defines the meaning of a term T *at this moment*, there is no reason to think that P will always have that status relative to T, or indeed that it has always *had* that status. It is reasonable to assume that 'gold has 79 protons' implicitly defines 'gold' now, but it obviously did not always define the meaning of 'gold', and it might cease to define the meaning of 'gold', given a revision in our understanding of gold itself.[240]

Of course, we might think that terms like 'house', 'king', and 'father' are immune to the possibility of revision, being non-theoretical terms, and thus terms that are not exposed to the possibility of meaning-change in the light of scientific discovery. On the

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[239] Timothy Williamson has recently subjected the notion of implicit definition to sustained critique. His argument works as follows. Given a term and a proposition said to implicitly define that term, he conjures up an individual who understands the term in question but who nevertheless fails to assent to the corresponding proposition. Thus, he conjures up an individual who understands the meaning of 'vixen', but who, on the basis of certain beliefs about the evolution of foxes, nevertheless fails to assent to 'vixens are female foxes'; and he conjures up an individual who understands the word 'and', but who, on the basis of certain logical beliefs, fails to assent to a judgment having the form 'A and B, therefore A'. (*The Philosophy of Philosophy*, pp. 87-8). One problem with this approach, as Peter Hacker has pointed out, is that it proceeds by cases: Williamson simply "think[s] up…counter-examples of exactly the right structure" to challenge whatever proposition is under consideration ("A Philosopher of Philosophy", p. 345). The more serious problem, which Paul Boghossian has emphasized, is simply the manifest implausibility of the counter-examples themselves. The notion that the individuals in these examples actually *mean the same thing* as we do by 'vixen' and 'and', respectively, despite refusing to endorse certain extremely trivial propositions containing these terms, runs counter to our basic intuitions regarding meaning (Paul Boghossian, "Williamson on the A Priori and the Analytic", pp. 492-4).

[240] Hans-Johann Glock, *Quine and Davidson on Language, Thought, and Reality*, pp. 87-8.

contrary, this arguably makes these terms *more* susceptible to meaning-change. Whereas the (strictly scientific) meaning of 'gold' can only change in the light of empirical discovery, the meaning of 'house' or 'king' can effectively change for any reason at all. What is required is just some shift in the meaning that an individual or a community confers onto those terms. Since there is no "intrinsic connection" between verbal symbols and the meanings that are conferred on those symbols, there is nothing to prevent such shifts from taking place.[241] That they actually do take place is something that Husserl recognizes quite clearly: he remarks on the "fluctuating ambiguity that clings to words to a far too great extent".[242]

What should we say, therefore, about Husserl's examples of analytically necessary propositions? At this point, it looks as if we should abandon those examples, along with the possibility that they gesture toward—the possibility of analytic judgments whose conformity to analytic law is not visible at the level of syntactic structure. Since we have been unable to show that words have their meanings as a matter of necessity, there is no way of showing that a judgment that is not obviously analytic might nevertheless be tacitly analytic. Given any such putatively analytic judgment, e.g. 'the existence of this house includes the existence of a roof', it will always be open to the skeptic to claim that 'house' does not actually mean a thing having a roof, that this is a matter of contingent association rather than necessary entailment.

Fortunately, this result need not worry us too much. In a Kantian context, it is indeed quite important to explain why terms should have their meanings as a matter of necessity: since a Kantian analytic judgment is invariably a judgment having the surface-

[241] *Logical Investigations*, Vol. 1, pp. 233, 218-228.
[242] *Introduction to Logic and Theory of Knowledge*, p. 79.

level syntactical structure 'S is P', analyticity is invariably a function of the meaning of 'S'. In a Husserlian context, however, it is not particularly important to explain this. Even if Husserl thinks that analytic necessity is in some cases a function of meaning, he does not think that analytic necessity is invariably a function of meaning. As Centrone's example demonstrates, analyticity can in some cases be a function of surface-level syntactical structure.

Analysis

This result has an interesting corollary. In short, analytically necessary propositions for Husserl do not seem to have any necessary relationship with *analysis*. Whereas we expect an analytic judgment to tell us something about a term appearing in that judgment, judgments like 'if Socrates has both courage and wisdom then he has courage' are not about their constituent terms in any obvious sense. Husserl's position on this matter stands in sharp contrast with Kant's. From Kant's perspective, a proposition like 'if Socrates has both courage and wisdom then he has courage' is logically unassailable, and thus a priori in a certain sense, but it is not analytic, because it does not articulate a judgment-internal relation of containment. The same is true of identical propositions like 'man is man': since concepts do not contain themselves, according to Kant, even such purely tautological judgments do not qualify as analytic.

How can we account for Husserl's distance from Kant on this matter? Has Husserl simply dissolved the relationship between analysis and analyticity? The first step toward seeing that this is not the case comes from recognizing that analyticity does not enter the scene with the analytically necessary proposition. Rather, it enters the scene with analytic law. Analytically necessary propositions inherit analyticity from the analytic laws to

which they are isomorphic. The next step, therefore, consists in clarifying the relationship between analytic law and analysis. In the case of certain simple analytic laws, like 'a part is necessary a part of a whole', this relationship seems relatively straightforward: the law in question seems to just lay out the meaning that is built into the term 'part'. But this way of understanding the relationship between analyticity and analysis breaks down in the case of more complex analytic laws: the logical judgment '((R → S) & (S → T)) → (R → T)' cannot reasonably be viewed as an expression of the meaning that is built into the term 'if'.

The key here is just to adopt a broader concept of meaning, and a correspondingly broader concept of analysis. Where analytic laws are concerned, meaning is not a matter of necessary and sufficient conditions. Meaning in this instance is a matter of the content that is *necessarily entailed* by a given concept, the content that flows from that concept independently of additional conditions. Analysis, accordingly, need not be a matter of examining the "really immanent parts" of the concepts that we entertain. According to Husserl, analysis can take in everything that flows as a matter of necessity from those concepts, which means everything that can be attributed a priori to the *objects* of those concepts.[243] Since the content that can be attributed a priori to, say, wholes, far exceeds the content that comes to mind spontaneously when I reflect on the term 'whole', it follows that this second kind of analysis—which Husserl calls 'logical analysis'—is considerably more fruitful than the first kind—which he calls the 'act analysis of meaning'. This, finally, enables us to understand the relationship between

[243] *Formal and Transcendental Logic*, p. 245, cf. *Philosophy of Arithmetic*, p. 146; *Logical Investigations*, Vol. 1, p. 288. Denis Fisette situates this object- or phenomenon-directed conception of analysis at the heart of Husserl's dispute with Frege ("Erläterungen: Logical Analysis vs. Phenomenological Description", pp. 83-4).

analyticity and analysis. From Husserl's perspective, analytic laws can be understood as expressions as logical analysis, meaning that they can be understood as judgments that draw out the content that is logically entailed by a given concept.[244]

This leaves us with one last question. What kind of concepts are at stake in analytic laws? In conformity to with the two-sided nature of analytic law, we can distinguish between two basic categories. On the ontological side, analytic laws flow from the logical analysis of the concept *object* and from the concepts logically subordinate to that concept (e.g. whole, part, property); on the apophantic side, analytic laws flow from the logical analysis of the concept *proposition* and from the concepts logically subordinate to that concept (e.g. dependent meaning, independent meaning). Ultimately, the articulation of analytic law amounts to an interrogation of these correlative, superordinate concepts.

Conclusion

Somewhat surprisingly, our examination of analyticity in Husserl has brought us back around to a recognizably Kantian picture of analytic judgment. Just as Kant understands 'bodies are extended' as a product of the analysis of the concept *body*, Husserl regards judgments like 'a whole cannot contain itself a part' as a product of the analysis of the concept *object*. What distinguishes Husserl from Kant on this matter is Husserl's sense of what conceptual analysis means. If for Kant, conceptual analysis of the concept *body* means seeking out the conditions that are necessary and sufficient for something's being a body, Husserl thinks that conceptual analysis of the concept *object* means spelling out

[244] I part company here with Dallas Willard, who suggests that Husserl does not regard logical analysis as providing the basis for analytic judgments (*Logic and the Objectivity of Knowledge*, pp. 173-4).

everything that holds a priori of objects, thus everything that can be said of objects insofar as they constitute wholes, insofar as they constitute parts, insofar as they jointly constitute a collection, insofar as they jointly constitute a manifold, etc.

Another difference between Kant and Husserl that has come to light here concerns the expository difficulty that their respective theories of analyticity present. With Kant, the main difficulty was that of reconciling the many different ways that he describes analytic judgments. In the case of Husserl, the main difficulty was that of reconciling the many different ways in which the idea of analytic law is deployed. What do the laws that govern the ways that wholes can be given have in common with the laws that constrain the possible kinds of deductive theory?

The most important thing to grasp in this regard is that analytic law bears simultaneously on two essentially correlative domains: that of the object as such and that of the judgment as such. The next thing to understand is that analytic law on both sides is arrayed along a kind of ascending scale. On the ontological side, we can talk about the laws that bear on objects as such, aggregates as such, and manifolds as such; and on the apophantic side, we can talk about the laws that bear on judgments as such, arguments as such, and deductive theories as such. This allows us to explain the relation between the two regions of analytic law mentioned above: the first represents the lowest level of ontological analytic law; the second represents the highest level of apophantic analytic law. This also allows us to grasp the underlying unity of these regions of law: the analytic laws bearing on the ways that wholes can be given have precise apophantic counterparts in the laws dictating the ways that judgments can be constructed; these laws, in turn, are presupposed by the laws that constrain the possible kinds of deductive theory.

In the next chapter, I want to tackle the relationship between Kant and Husserl more directly. I will begin by taking up a question that I have left conspicuously to the side in the present chapter, the question of what Husserl himself has to say about Kant's idea of analytic judgment. From there, it will be possible to clarify a number of subtle but important differences between Kant and Husserl on the issue of analyticity, for example, the different ways that they conceive of the relationship between analyticity and synthetic a priority, and the different ways that they conceive the relationship between analyticity and logic. Having done so, it will be possible to venture some general remarks about the relationship between Kant and Husserl. Despite its relatively marginality in the work of both thinkers, analyticity will prove to be a very instructive lens on to the relation between their respective philosophies.

Chapter 6

Kant and Husserl on Analyticity

Having investigated Kant and Husserl's respective notions of analyticity in detail, what I want to do in this final chapter is to bring Kant and Husserl into direct conversation. To some extent, this will mean revisiting the material that has already come to light over the previous four chapters. Especially in the case of Husserl, however, it will mean bringing to light issues and material that we have not so far had an occasion to consider.

The objective of this comparison, in one sense, will simply be to highlight the surprising degree of unanimity that exists between these thinkers. Against Husserl's own representation of his relationship to Kant on this issue, I will show that they do in fact converge on a very similar conception of analyticity. This in turn will make possible a more interesting task, that of identifying the point at which Husserl diverges from Kant. What I will show is that Husserl's primary innovation relative to Kant is his claim that formal logic is analytic. The subsequent non-Kantian elements in his theory of analyticity—from his distinction between analytic truth and analytic necessity, his distinction between two kinds of analytic evidence, and his conception of the relationship between the analytic and the empirical—flow ultimately from this initial point of divergence.

The plan for this chapter is as follows. In the first section, I outline Husserl's critique of Kant on the subject of analyticity and offer an assessment of its merits. I show that Husserl's Kant is largely a straw man. Contrary to Husserl's assertions, Kant does not situate analytic judgment under the heading of general logic, meaning that he does not understand analyticity as a matter of a mere formal validity. For Kant, rather, analytic

judgment concerns objects, meaning that it falls under the heading of transcendental logic. In the second section, I consider the issue of analyticity and logic in more depth. I begin by clarifying the question of why general logic cannot be a logic of objects from Kant's perspective. I then explain why general logic *is* a logic of objects for Husserl, and I show that this position leads him to a number of significant departures from Kant—to a non-Kantian understanding of the nature and role of transcendental logic, and to a similarly non-Kantian distinction between analytic truth and analytic necessity. In the third section, I take up the issue of analytic evidence. I show that Kant and Husserl have similar views on the nature of analytic evidence, in the sense that both think that analytic evidence is to be won on the basis of objects, but I suggest that Husserl departs from Kant in several important respects. First, Husserl clearly confronts the question of how we can derive analytic truths from particular, arbitrarily chosen objects. Second, he distinguishes between two different forms of analytic evidence: the evidence that is relevant to analytic law and the evidence that is relevant to analytic necessity. In the fourth section, I consider the epistemic relationship between the analytic and the synthetic. I argue that Kant and Husserl conceive this relationship in very similar terms: both maintain that analytic judgment plays a necessary role in the representation of synthetic judgments, and both maintain that analytic judgment plays a necessary role in the formation of synthetic judgments. In the fifth and final section, I take up the issue of analytic judgments having empirical content. After rehearsing Kant's argument in this regard, I consider the position that Husserl sketches in various recently published manuscripts. I show that Husserl's empirical analytic judgments make a claim to analytic necessity rather than analytic truth,

and that to this extent, Husserl is insulated from the problems that afflict Kant's formulation of empirical analytic judgment.

1. Husserl on Kant

On the question of analyticity, Husserl's attitude toward Kant is for the most part negative. In his *Draft Preface to the Logical Investigations*, he notes that he is concerned to work out the "proper concept of the analytical as opposed to the unclear Kantian one"[245]; and in the *Logical Investigations*, he remarks that Kant's formulation of the analytic-synthetic distinction does not "deserve to be called classical", meaning, presumably, that Kant's formulation of the analytic-synthetic distinction does not deserve to be treated as a template for all future formulations of that distinction.[246]

The basis of this negative assessment is relatively easy to make out. For Husserl, in short, Kant simply fails to take analytic judgment seriously as an epistemological problem. Kant proceeds as if the only epistemological task that arises in connection with analytic judgment is that of producing a "principle" by which the "objective validity" of analytic judgments can be seen; and he supposes that with the principle of non-contradiction, he has succeeded in producing such a criterion. According to Husserl, this shallow treatment of analytic judgment reflects Kant's understanding of where analytic judgment fits in the theoretical edifice of the first *Critique*, namely, under the heading of general logic.[247]

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[245] *Introduction to the Logical Investigations: A Draft of a Preface to the Logical Investigations*, p. 43.
[246] *Logical Investigations*, Vol. 2, p. 21.
[247] *Introduction to Logic and Theory of Knowledge*, pp. 110, 133, 335

General logic, as we learned in the fourth chapter, is Kant's "science of the necessary laws of the understanding and of reason in general" (or his "science of thinking", in Husserl's paraphrase). It is a logic that examines concepts, judgments, and inferences as such, and which spells out the different ways in which concepts, judgments, and inferences can legally combine. This tells us what it means to say that, for Kant, analytic judgment falls under the heading of general logic. What it means is that analytic judgment figures in the critical philosophy as a particular kind of legitimate inference. Rather than a genuinely distinct form of cognition, analytic judgment is simply what happens when we predicate a constituent of some concept of that concept itself.

What kinds of questions are left to the side in this treatment of analytic judgment, according to Husserl? For one, Kant does not inquire into the basis of analytic validity. Having shown that the validity of an analytic judgment is in some sense a function of the principle of non-contradiction, he does ask what the principle of non-contradiction—or logic as a whole—is grounded in. Once we know that for Husserl, this question is to be answered by pointing to a "separate, self-contained "world" of ideal objects",[248] and to the lawlike relations that obtain *between* those ideal objects, we are in a position to understand the second question that Husserl poses to Kant. What Husserl wants Kant to explain is "how objectively valid knowledge, knowledge of things existing on their own, is possible vis-à-vis the subjectivity of knowing as a subjective activity".[249] In other words, given that logical truth is a matter of the necessary relations that obtain between

[248] *Formal and Transcendental Logic*, p. 260.
[249] *Formal and Transcendental Logic*, pp. 260-1, cf. *Introduction to Logic and Theory of Knowledge*, p. 335.

objects existing entirely independently of human minds, how does it happen that that these relations can be constituted, purely spontaneously, *by* human minds?

Of course, Kant is not insensitive to the problem of explaining how consciousness comes to be the setting for a priori knowledge of objects. Like Husserl, he formulates something that he calls transcendental logic as a means of addressing precisely this problem. According to Husserl, however, Kant's transcendental logic cannot become a way of clarifying logical truth. The reason is that Kant does not recognize that logical truth amounts to truth *of objects*. Hence, Kant cannot meaningfully ask in what sense this particular variety of objective truth comes to be constituted within consciousness. He is obliged to treat logical truth as a kind of primitive fact about human consciousness, and to treat general logic as an examination of this primitive fact.

What is the role of transcendental logic if not to clarify general logic? According to Husserl, Kant's transcendental logic is a matter of explaining how our a priori knowledge of *spatio-temporal* objects is possible. In other words, it is matter of explaining how synthetic a priori judgments are possible. Transcendental logic presupposes general logic, in the sense that synthetic a priori judgments are necessarily logically sound; but since it is turned toward spatio-temporal objects, transcendental logic cannot become a way of reflecting on general logic, meaning that it cannot become a way of reflecting on analytic judgment. According to Husserl, the latter remains out of the reach of any meaningful clarificatory effort in the context of Kant's philosophy.

Assessing Husserl's Claims

What should we make of these criticisms? Ultimately, I think that they proceed from a mistaken understanding of what analytic judgment means for Kant. In the first place,

while it is true that Kant seems to treat the principle of non-contradiction as a sufficient basis for seeing the truth or validity of analytic judgment, this appearance is deceptive. As I argued in the fourth chapter, seeing that a putatively analytic judgment is true involves two essential conditions: first, we need to know that the negation of the judgment in question is contradictory; second, we need to know that the subject concept of the judgment has objective reality. Supposing that this second condition has not been met, then our judgment can be nothing more to us than a sequence of words, or a sequence of purely idiosyncratic mental representations. Since we do not know that the subject concept of our judgment corresponds to a real object, we cannot know that the content that we attribute to that concept belongs to it in any robust sense, thus we cannot know that a judgment that *seems* analytic actually is analytic.

This in turn suggests that Kant does not situate analyticity within general logic, as Husserl suggests. For the purposes of general logic, a judgment is true, or rather 'correct', just insofar as its constituent terms are 'connected' in the right way. The question of whether its constituent terms *also* have objective reality does not arise for the logician, because this is irrelevant to the question of whether the one follows from the other in a strictly formal sense. Does this mean that Kant situates analytic judgment within transcendental logic? Although he does not say so himself, this seems to be the most plausible reading of his position. Since analytic judgment is by definition a priori, and since it is necessarily *about* objects, it falls squarely into the "science of pure understanding…by means of which we think objects a priori" that Kant envisions (A57/B81).

This suggests that the distinction between analytic and synthetic a priori judgment does not correspond to the distinction between general and transcendental logic, as Husserl leads us to believe. Rather, it is a distinction *within* transcendental logic. It amounts to the difference between judgments that capture the strictly logical elements in our a priori cognition of objects and judgments that capture the material elements in our a priori cognition of objects.

This allows us some perspective on the two main lines of criticism that Husserl directs toward Kant. First, as regards Kant's failure to explain in what sense the principle of non-contradiction is justified, I think that this critique loses most of its force in light of Kant's actual understanding of analyticity. It remains more or less justified as a comment on Kant's understanding of *logic*: Kant does seem to simply stipulate that certain kinds of inferences are correct. But once we see that analytic judgment is not simply a function of the principle of non-contradiction, it is no longer possible to charge that Kant's failure to clarify the principle of non-contradiction is equivalent to a failure to clarify the nature of analytic judgment.

What about Husserl's second line of criticism, to the effect that Kant does not explain how knowledge of formal-logical truth comes to be constituted in consciousness? Again, there is a sense in which this critique simply loses most of its force when it is held up against Kant's actual understanding of analyticity. Since Kant does not think that analyticity is reducible to logic, the fact that he cannot explain the constitution of formal-logical truth is beside the point. Husserl's critique does have more force when we rephrase it slightly, and ask how Kant proposes to explain how genuinely analytic knowledge comes to be constituted, that is, how we are able to grasp the logical

properties of mind-independent objects with necessity. But this, as it turns out, is precisely the kind of question that Kant is able to answer. From Kant's perspective, we are able to grasp the logical properties of mind-independent objects with necessity because we can reflect on the a priori conceptual resources through which objects come to be represented as mind-independent objects in the first place. Precisely by forming analytic judgments, in other words, we can understand what it takes for something to be an object.

One way of summarizing Husserl's engagement with Kant on this issue, perhaps, would be in terms of Husserl's own formulation of analytic judgment. From Husserl's perspective, we might say, Kant gets only as far as the analytically necessary proposition. Kant gets only as far as seeing that there are certain judgments that are true just by virtue of their formal structure, thus, that there are judgments that can be seen as true just insofar as we grasp the formally valid propositional structure that they instantiate. What Kant does not see, from Husserl's perspective, is that these formal structures are themselves analytic. He does not see that analytic judgments like 'bodies are extended' inherit their analyticity from the more general *analytic laws* to which they are isomorphic. This means that Kant cannot raise the most important and most difficult epistemological question about analyticity. He cannot ask how these formal structures themselves come to be valid, and how they come to be valid *for us*.

One way of summarizing the Kantian response to Husserl, meanwhile, would be to say that Kant's analytic judgments have much more in common with Husserl's analytic laws than with his analytically necessary propositions. Contrary to Husserl, an analytic judgment is not reducible to a more general truth. Like an analytic law, it is a kind of

ground zero of truth and validity; it is a judgment that is true independently of the truth of any prior judgment.

2. Analyticity and Logic

At this point, it is worth looking more closely at how Kant comes to the view that general logic is not related to objects, and thus, that our a priori knowledge of objects is properly articulated within transcendental logic. This will help to explain why formal logic *is* related to objects, according to Husserl, and why he assigns a rather different role to transcendental logic relative to analytic truth.

In Chapter Four, I suggested that we could look to the Transcendental Amphiboly of the first *Critique* as a way of explaining Kant's position on the relation between general logic and objects. What Kant tries to show there, I suggested, is that general logic falls out of step with objects at certain moments, meaning that the objective validity of general logic is not assured in advance. Kant's argument can be reduced to the conjunction of two claims:

1) The pure understanding forms judgments about objects on the basis of the concepts corresponding to those objects. These judgments reflect the application of innate logical principles (A262/B317-8).

2) Concepts capture the "inner determinations" of objects, meaning the determinations that they have independently of their givenness at a particular point in space and independently of their orientation *in* space (i.e. their 'handedness') (A263/B319-20).

This conjunction of claims explains why it is possible to be mistaken regarding the identity of material objects. Since, according to (2), there is no difference between the concept of my left hand and the concept of my right hand, I have no *logical* basis for

distinguishing between them.[250] This in turn explains why logical principles of inference like the one that Kant appeals to here—the principle that says that if two things have exactly the same properties then they are identical—do not hold universally with respect to objects. Because our concepts do not encode all of the inferentially relevant properties of the corresponding objects, it follows that even a perfectly consistent application of this principle will fail to guarantee objectively valid results. This, finally, explains why Kant is obliged to appeal to transcendental logic. Since general logic fails to guarantee a priori knowledge of objects, Kant needs to develop a language in which such a priori knowledge can be articulated.

This compressed account of the Transcendental Amphibology allows us to isolate the precise point at which Husserl departs from Kant's reasoning. For Husserl, in short, it is simply not the case that our strictly formal principles of inference bear strictly on concepts—let alone the sharply attenuated concepts that Kant describes. Rather, these principles bear on *existents*, meaning actual or possible objects that are "accessible to objective self-evidence within the unity of our experience".[251] This is a matter of the implicit intentionality of logical judgment. Even though, in logic, we tend to think strictly in terms of mere variables, what we have in the background, according to Husserl, is the world of experience. We expect that our logical variables are to be 'filled-in' by objects

[250] This example comes from Kant's 1768 essay dealing with 'incongruent counterparts', ("Concerning the Ultimate Ground of the Differentiation of Directions in Space", in *Theoretical Philosophy 1755-1770*, p. 370).
[251] *Experience and Judgment*, p. 39. The flipside of the object-oriented nature of logical judgment is the judgment-oriented nature of objects. As Husserl remarks in a number of places, it belongs essentially to possible objects of experience that they be possible objects of judgment (e.g. Husserliana XXXV, pp. 449-50, 452).

that can be given in experience; and we expect that logical judgments are to be 'filled-in' by states of affairs that can be given in experience.

This allows for a series of important conclusions. In the first place, it means that the scenario that Kant describes cannot arise. Since the ultimate object of logical judgment is the object of experience, meaning the object as given with *all* of its inferentially relevant determinations, there is no prospect of a logically self-evident judgment being falsified in the light of experience. This in turn means that formal logic is indeed a logic of objects. Since there is no moment at which formal logic falls out of step with the world of objects, there is no reason to limit the claims of formal logic to mere concepts or mere variables. And this, finally, means that Husserl is entitled to reject Kant's understanding of transcendental logic. Because formal logic already holds necessarily with respect to objects, Husserl need not look to transcendental logic as a way articulating our a priori knowledge of objects.

This now brings us within view of our main question. What does transcendental logic mean for Husserl? The answer to this question grows out of Husserl's rejection of (1) above. Since Husserl rejects the idea that the principles of logic are simply woven into the fabric of human psychology, he is obliged to given an account of how they come to be abiding subjective acquisitions. More to the point, he is obliged to explain how principles having the status of *necessary rules* come to be constituted within the finite domain of consciousness. According to Husserl, it is the role of transcendental logic to supply this explanation. Beginning with the "acts of determination" through which the world of experience is first invested with logical form, and proceeding upward through acts of scientific and logical intentionality, transcendental logic is to explain how the

"traditional objective content of formal logic" comes to be constituted.[252] This in turn allows us to answer our second question, that is, to specify the role of transcendental logic relative to analyticity. Rather than the theoretical setting within which analytic law is to be articulated, it follows from what we have seen that transcendental logic will have the role of *clarifying* analyticity, of explaining how judgments that bear on all objects and all judgments whatsoever are constituted within the medium of subjective consciousness.

Unfortunately, Husserl himself does not manage to carry out this constitutive analysis. Although he takes some strides in his late work toward clarifying the constitution of basic logical principles and forms of judgments, he does not manage to extend this clarificatory effort into the sphere of analytic cognition. Suffice it to say, then, that the transcendental clarification of analyticity represents the most pressing task that arises for Husserlian phenomenology in this area; and the task that, from Husserl's perspective, most strongly distinguishes his own approach to analyticity from Kant's.[253]

Two Notions of Analyticity

Here, I want to spell out some of the implications of Husserl's claim that general logic is already a full-fledged canon of analytic truth. In the first place, it means that Husserl, unlike Kant, can regard analyticity as a hereditary property. Since logical laws are

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[252] *Formal and Transcendental* Logic, p. 10; *Experience and Judgment*, p. 50. This conception of the role of transcendental logic reflects the meaning that Husserl gives to the term 'transcendental' in general. For Husserl, the term signifies the "motif of inquiring back into the ultimate source of all the formations of knowledge, the motif of the knower's reflecting upon himself and his knowing life in which all the scientific structures that are valid for him occur purposefully, are stored up as acquisitions, and have become and continue to become freely available" (*Crisis of the European Sciences and Transcendental Phenomenology*, pp. 97-8, cf. *Experience and Judgment*, p. 49).
[253] According to Husserl, Kant "did not make his analytic Apriori a problem" (*Formal and Transcendental Logic*, p. 260).

already analytic, it is sufficient for a proposition's being analytic that it be isomorphic to some logical law. We do not need to show that its constituent concepts correspond to real objects, or that they do so in a strictly a priori manner. Even manifestly absurd judgments like 'all triangles are reckless, Socrates is a triangle, therefore Socrates is reckless' will qualify as analytic for Husserl, provided just that they are logically unassailable.[254]

This in turn means that there are effectively two ways for a proposition to be analytic. An analytic law, on the one hand, is analytic is the sense of being unconditionally universal. An analytically necessary proposition, on the other hand, is analytic in the sense that it holds by virtue of an unconditionally universal law. To describe a proposition as 'analytic', in this sense, is not to say something about the validity of the proposition relative to objects; it is to say something about the way that its constituent elements are related. It is to posit a judgment-internal relation of 'analytischer Zusammenhang'[255] or 'analytische Notwendigkeit'.

This relational understanding of analyticity points toward a final, extremely significant difference between Kant and Husserl on the issue of analyticity. For Kant, as we know, analyticity is a property of individual judgments. Since he associates analyticity with truth-evaluability, and since he associates truth-evaluability with subject-predicate form, it follows that analyticity will extend only over a small class of true, subject-predicate propositions. For Husserl, on the other hand, analyticity can be a property of propositions, inferences, and entire systems of propositions. The reason is

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[254] *Husserliana* XXXV, p. 460; cf. pp. 459, 465; *Husserliana* XL, p. 324. See also: Hans-Ulrich Hoche, *Nichtempirische Erkenntnis*, p. 41. Recall from the fourth chapter of this study that Kant manages to wall off these absurd tautologies by stipulating that only subject-predicate judgments are candidates for analyticity.
[255] *Husserliana* XL, p. 459.

that Husserl understands analyticity as a relation. Analyticity is not merely a property of certain universal truths; it is the property that a *system* of judgments has when its constituent elements are related to one another by virtue those universal truths. Thus, it is a property that an individual inference has when it follows by virtue of modus ponens; and it is a property that an entire science has when its constituent judgments are related solely by virtue of the principle of non-contradiction. Since mathematics is just such a science, according to Husserl, it follows that mathematics as a whole is analytic.[256]

3. Analyticity and Evidence

Before moving on to consider the methodological role that analytic truth performs, it is worth pausing to consider a more basic epistemological question. In short, what is the evidence for analytic truth? As we saw in Chapter 1, Kant offers a fleeing answer to this question in the Introduction to the second edition of the first *Critique*. He says that the evidence for analytic truth comes from conceptual analysis, from my "becom[ing] conscious of the manifold that I always think" in a given concept (A7/B11). As for what it means to analyze a concept, this is not a matter of simply contemplating an abstract

[256] *Formal and Transcendental Logic*, p. 11; *Introduction to the Logical Investigations: A Draft of a Preface to the Logical Investigations*, p. 29. Note that this does not mean that mathematical judgments are on par with 'all triangles are reckless, Socrates is a triangle, therefore Socrates is reckless'. In other words, it does not mean that mathematical judgments are simply arbitrary substitution-instances of logical truths. For Husserl, rather, mathematical judgments have the status of analytic laws: they hold necessarily with respect to objects (*Introduction to Logic and Theory of Knowledge*, pp. 51, 54, 78; Suzanne Bachelard, *A Study of Husserl's Formal and Transcendental Logic*, p. 31; Guillermo Rosado Haddock, "To Be a Fregean or to be a Husserlian: That is the Question", p. 204). To the extent that mathematics can also be described in terms of analytic necessity, it is because the relations *between* mathematical judgments hold by virtue of conceptual content alone, independently of the relations between actually existing objects. According to Husserl, 7 + 5 = 12 is indeed true just by virtue of its constituent concepts (*Philosophy of Arithmetic*, p. 194).

intentional unity. Rather, as Kant explains just a few lines earlier, it is a matter of reflecting on an *instance* of the concept in question, which is to say, on a particular object. What does this reflection entail? According to Kant, it entails abstracting from the determinations that belong to that object as the particular object that it is in order to get at the determinations that belong to it as an instance of the corresponding concept. Thus, in the case of Kant's example, that of a particular empirical body, it means gradually removing the "color, the hardness or softness, even the impenetrability" until only the determinations that belong to that body *as a body* remain (B5-6). Supposing that we have been comprehensive in this effort, Kant explains, then we will recognize that what makes a body a body is simply the fact that it occupies space. This means that we will have grasped what is 'always thought' in the concept *body*, namely, the predicate concept *being-extended*. And this, finally, means that we will have grasped the judgment 'bodies are extended' as an analytic truth.

Husserl, for his part, makes a number of Kant's assumptions about the possibility of analytic truth explicit. Where Kant assumes that the evidence for an analytic judgment is to come from the objective correlate of a concept, rather than a concept *per se*, Husserl maintains that the evidence for an analytic law is to be won on the basis of a certain kind of real objective givenness (which he calls "analytic givenness").[257] And where Kant assumes that this objective correlate can be chosen almost arbitrarily, because he assumes that there is no metaphysically significant difference between one body and another, or one cause and another, Husserl makes explicit the notion that the evidence for an analytic

[257] *Husserliana* XL, p. 319. Amie L. Thomasson makes the same point about Husserl that I made above about Kant: she notes that 'conceptual analysis' for Husserl means the examination of an imaginatively evoked object ("Conceptual Analysis in Phenomenology and Ordinary Language Philosophy", p. 280).

truth can come from any relevant "example" whatsoever—even examples that are summoned to the imagination on the basis of phantasy[258].

But Husserl does more than simply clarify Kant's thinking on the subject of analytic truth. In the first place, because Husserl maintains that analytic truth extends beyond the ontological sphere, he comes to a different understanding of the kind of evidence that is relevant in the context of analytic truth. He maintains that the evidence for an analytic truth can come not simply from objects, but from judgments; thus, that the evidence for the analytic law of non-contradiction can come from any pair of contradictory judgments (and from the performance of the 'yes' and 'no' that those contradictory judgments evoke).[259] Second, because Husserl sees more clearly than Kant that the evidence for analytic truth is derived from particular instances, he is more directly conscious of the question that arises from this—the question of how the evidence for a universal law can come from a particular object or state of affairs. According to Husserl, we are able to grasp the law of non-contradiction in a particular contradictory judgment because we are capable of a kind of generalization that he calls *ideation*.[260] We are capable of abstracting from the particular features of a particular thing and seeing what makes it *the kind of thing that it is*. In short, we are capable of grasping a judgment, object, or state of affairs at the level of *essence*.

Why makes Husserl think that we have such an ability? In the *Logical Investigations*, he explains that the possibility of ideation is a matter of the basic requirements of knowledge. Supposing that we were not able to grasp what is essential in

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[258] *Formal and Transcendental Logic*, p. 213; *Husserliana* XXXV, p. 446-7; Hans-Ulrich Hoche, *Nichtempirische Erkenntnis*, p. 31.
[259] *Husserliana* XL, p. 319; *Logical Investigations* Vol. 1, p. 168.
[260] *Husserliana* XL, p. 319.

actually experienced judgments, we would not be in a position to form universal logical concepts or the universally valid logical laws that flow from those concepts. This in turn would mean that we would not be in a position to *apply* logical laws, meaning that we would not be able to employ logical laws as a way of understanding objects of thought or experience. Since, on the other hand, we are manifestly employ logical laws in this way, and to do so in a spirit of absolute certainty, then it follows that we do have eidetic insight into judgments and into objects of experience in general.[261]

As for analytically necessary propositions, here it looks as if it is necessary to modify our account. Since a judgment can qualify as analytically necessary even when it is materially absurd (e.g. 'a round quadrangle is angry or not angry') evidence in such cases obviously cannot be a matter of exemplifying intuition.[262] According to Husserl, what is relevant in cases of analytic necessity is the syntax of the judgment in question. I grasp a judgment as analytically necessary when I grasp it at the level of its formal, syntactical structure, and when I see that the judgment holds by virtue of that syntactical structure. The question of the judgment's content does enter into consideration in this context. For the purposes of assessing analytic necessity, we allow the terms to "[float] freely, so far as their origin and therefore their possibility are concerned".[263]

This means that analytic evidence for Husserl takes two forms. The evidence for analytic necessity comes from the judgment as judgment, meaning the judgment grasped *distinctly* as a syntactic unity. The evidence for analytic law, meanwhile, comes proximately from a real or imagined object or state of affairs, and ultimately from the

[261] *Logical Investigations* Vol. 1, p. 69.
[262] *Husserliana* XL, p. 325.
[263] *Formal and Transcendental Logic*, p. 337.

formal essence that is exemplified by that object or state of affairs. We grasp an analytic law with evidence when we see that the analytic law *qua judgment* finds fulfillment in a corresponding essence. This is evidence in the sense of *clarity* rather than distinctness.[264]

4. The Analytic and the Synthetic

In the first chapter, we learned that for Kant, analytic judgments perform an "important and necessary" role in the representation of synthetic a priori judgments *as* synthetic a priori judgments. Only insofar as I enjoy analytic insight into the content of my a priori conceptual endowment am I in a position to positively distinguish judgments that extend my a priori conceptual endowment.

Adjusting for Husserl's phenomenological orientation, it looks as if something similar applies for him. From Husserl's perspective, it is strictly by virtue of our ability represent phenomenal content in terms of analytic relations that I am able to represent phenomenal content in terms of synthetic a priori relations. Thus, it is strictly by virtue of that fact that I am able to represent color and extension as distinct members of an 'analytic' or aggregative whole that I am able to represent color and extension as necessarily and materially related. In the absence of this initial act of the understanding, or this initial act of "analytic cognition", I simply do not have the basic logical prerequisites for a synthetic a priori judgment. I have an *experience* of color and extension; but I do not have color and extension as distinct, unitarily intended objects of cognition.[265]

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[264] *Formal and Transcendental Logic*, p. 338. On the distinction between clarity and distinctness, see *Formal and Transcendental Logic*, pp. 60-61.
[265] *Philosophy of Arithmetic*, p. 78, cf. *Logical investigations*, Vol. 2, pp. 39, 286.

Of course, analytic judgment is not valuable for Kant only insofar as it enables us to represent synthetic a priori judgments. He signals that analytic judgment performs a still stronger epistemic role relative to synthetic a priori judgments, that it facilitates the *formation* of new synthetic judgments (4:273-274). Although Kant does not indicate exactly how this is to work, it is at least clear why it should work. From Kant's perspective, the conceptual content that is reflected in analytic judgments is logically prior to the non-conceptual content that is reflected in synthetic a priori judgments. Insofar as I have an analytic insight into a given concept, I am therefore in a position to extend my understanding of that concept synthetically. I am in a position to characterize the precise fashion in which that concept, with its strictly logical content, is schematized in the context of spatio-temporal intuition.

Husserl, meanwhile, casts the epistemic relationship between the analytic and synthetic in similar (but stronger) terms. He says that the "knowledge of form" that is made available by analytic law has an "extraordinary methodological significance" relative to all "knowledge of things".[266] This follows from Husserl's understanding of analytic law. Since analytic law, for Husserl, encompasses the laws that pertain to all objects whatsoever, it follows that a fully grounded inquiry into any particular domain of being presupposes an examination of the analytic domain.[267] Before undertaking to examine the domain of spatio-temporal being, or the domain of natural being, we must examine the "forms and laws belonging to the essence of objectivity in general".[268] Following Kant, who identifies the analysis of our a priori conceptual repertoire as a

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[266] *Introduction to Logic and Theory of Knowledge*, pp. 108, 60.
[267] *Introduction to the Logical Investigations: A Draft of a Preface to the Logical Investigations*, p. 31; *Ideas*, p. 108.
[268] *Introduction to Logic and Theory of Knowledge*, p. 108.

distinct, logically primary area of inquiry within metaphysics (4:326, 4:237-4), Husserl identifies this examination of objectivity as a distinct, logically primary area of inquiry within ontology. He explains that material ontology—meaning the examination of the laws that pertain to particular object domains—presupposes a purely formal ontology.[269]

5. The Analytic and the Empirical

Before concluding, I want to consider an issue that has so far been absent from our discussion of Husserl, that of the relationship between analyticity and the empirical. Having shown that analytic judgment can be brought to bear on the formal or categorial properties of objects, I want to ask whether analytic judgment can also be brought to bear on the empirical or sensible determinations of objects.

In Chapter Three, I considered this issue from a Kantian standpoint. I suggested that, for Kant, the possibility of analytic judgments having empirical content is to be explained with reference to natural scientific methodology. Kant thinks that natural science presupposes fixed, designative concepts; and he assumes, for this reason, that a certain kind of a priori conceptual judgment is possible in the context of natural science. Unfortunately, as we discovered, this account of empirical analytic judgment gives rise to serious problems. On the one hand, even if we suppose that a natural substance must be defined in terms of an initial, designative concept, it is not obvious why only one concept should fit the bill: different communities might endorse different definitions of, say, water, meaning that there would be two non-overlapping sets of analytic judgments with respect to water. On the other hand, even if we ignore this issue and suppose that everyone has the same definition of water, it is not clear why that definition should

[269] *Formal and Transcendental Logic*, pp. 29, 80.

remain static: given the discovery of a new, water-like substance, our existing definition might cease to designate its object sufficiently, meaning that we would be obliged to build new predicates into our definition and to bring new analytic judgments into being in the process. Since analytic judgments are ostensibly universal, we cannot abide the first scenario; and since they are ostensibly a priori, we cannot abide the second.

Perhaps unsurprisingly, Husserl's intuitions are out of sync with Kant's on this issue. Husserl does not think that the possibility of empirical understanding requires that we hold fast certain empirical concepts. But Husserl does think analytic judgments having empirical content are possible; and like Kant, he thinks that this possibility has something to do with the way that empirical concepts come to be formed.

According to Husserl, empirical concepts are formed on the basis of an ongoing process of constitution.[270] Beginning from an essentially passive experience of particular natural types, we proceed to actively thematize those types, and to construct concepts that encode the ensuing acts of predication. According to Husserl, these concepts then become a lens through which future experiences are refracted. Presented with an object that conforms to the passively constituted type 'fir tree', I reflexively constitute that object in terms of the corresponding concept, which means that I constitute the object in terms of determinations that may or may not be apparent on the surface of the given object.[271] This in turn means that the object becomes a 'substrate' for analytic judgment. Since the

[270] See Gail Soffer, "Language and the Formation of General Concepts: The Second Investigation in a Genetic Light".
[271] *Husserliana* XXXV, p. 462.

actually given fir tree is constituted in terms of the concept *fir tree*, it follows that the concept can be, as it were, read off of the tree.[272]

For Husserl, this amounts to an analytic judgment in the 'narrow' sense.[273] An analytic judgment in the 'wide' sense, on the other hand, is a judgment that is directed toward a presentation *as such*, thus, a judgment that makes explicit the various acts of intentionality that are directed toward a *particular* object, and that make it the case that this particular object is given in the way that it is. Husserl offers the example of a house. He says that I render a 'wide' analytic judgment on the basis of a concretely given house when I make explicit the intention that is directed at the front side, the intention directed at the back, the actual appearance of the front, the inauthentic appearance of the back, etc.[274]

What should we make of the different forms of empirically significant analytic judgment that Husserl describes here? As regards the first kind, which Husserl describes as narrow analytic judgment, and which amounts to the explication of an empirical concept, there seems to be some room for skepticism. Since an empirical concept is precisely an open, progressively constituted unity, it might look as though we could never be in a position to form an a priori judgment on the basis of that concept. I might judge that the concept *fir tree* involves the idea of certain kinds of leaves, only to revise my concept in the light of further experience, and so falsify my original judgment.

As it happens, I do not think that this scenario represents a real problem from Husserl's perspective. In invoking the term 'analytic' in the context of empirical judgment,

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[272] *Husserliana* XXXV, pp. 463-464; *Husserliana* XL, pp. 340, 352.
[273] *Husserliana* XL, p. 339.
[274] *Husserliana* XL, pp. 336-7.

Husserl does intend to suggest that certain judgments about empirical objects hold necessarily *with respect to those objects*. What he wants to suggest, rather, is that certain judgments about empirical objects have the structure of analytic laws: when I simply unpack the conceptual content that is brought to bear on the apprehension of a fir tree, I attribute a part of a conceptual whole to that conceptual whole itself.

The same thing holds for those judgments that Husserl calls 'wide' analytic judgments. Husserl does not think that a judgment like 'my intending of this house includes an intending of its front side' is analytic in the sense that it holds a priori with respect to intentional acts directed at houses (since, after all, we could always imagine a house-directed intentional act that did not include an intention toward the front side). What he thinks, rather, is that if my intending of a house *actually does* include an intending of its front side, then the judgment 'my intending of this house includes an intending of its front side' will have the structure of a mereological law.

Ultimately, therefore, it looks as if we should understand both forms of analytic judgment on the model of analytically necessary propositions. Rather than judgments that hold by virtue of invariant empirical facts, we should understand narrow and wide analytic judgments as judgments that hold strictly by virtue of their formal structure.[275] The important qualification is that a 'judgment', in this case, must be understood in the sense of an *act* of judgment, not in the sense of a proposition. Whereas the formal validity of a judgment like 'man is man' is visible on the surface of the judgment, and so is independent of whatever is thought in conjunction with 'man', the formal validity of the judgment 'a fir tree has needle-shaped leaves' is not visible on the surface of the

[275] *Husserliana* XXXV, p. 465.

judgment, and so depends on what is *thought* in conjunction with 'fir tree' at a particular time, in a particular act of judgment.[276]

One way of understanding the difficulties inherent in Kant's notion of the empirical analytic, finally, is to reflect that Kant simply cannot appeal to Husserl's reasoning. In the first place, Kant cannot claim that an empirical analytic judgment holds just by virtue of its formal structure: he is committed to the claim that an analytic judgment holds by virtue of its objective correlate, meaning that he is committed to the claim that an analytic judgment holds *a priori* with respect to that objective correlate. For just the same reason, Kant cannot say that a judgment is analytic in the sense of an *act*. From his perspective, this would be to say that there are a priori truths that hold only at the moment of judgment. It would simply be contradictory.

Conclusion

In conclusion, I hope to have shown two things. First, I hope to have shown that Kant and Husserl are much closer on the subject of analyticity than we might have expected. Second, and most importantly, I hope to have identified the salient difference between Kant and Husserl on this subject.

Husserl's oft-repeated critique of the Kantian model of analyticity offered a convenient point of entry onto our first task. Against Husserl, it was possible to show that

[276] Hans-Johann Glock has argued persuasively that a proposition can be 'conceptual' without being a priori. Thus, a proposition can capture what is genuinely constitutive of a given concept even if it does not capture what is genuinely constitutive of that concept *for all time*. The proposition 'gold has 79 protons', according to Glock, is arguably constitutive of what we mean by 'gold' *now*; but we can imagine a revision in our understanding of gold that would induce us to abandon—but not, strictly speaking, to falsify—this proposition (*Quine and Davidson on Thought, Language, and Reality*, p. 88).

Kant situates analyticity under the heading of transcendental logic rather than general logic, meaning that Kant agrees with Husserl as regards the metaphysical significance of analyticity. This in turn made it possible to broaden the parallel between Kant and Husserl on this issue. Thus, it was possible to show that Kant and Husserl understand analytic evidence in very similar terms: both think that the evidence for analytic truth is to come from an arbitrarily chosen instance of the concept or law that is in question. Likewise, it was possible to show that Kant and Husserl understand the relationship between the analytic and synthetic in similar terms: both regard the cultivation of analytic knowledge as a necessary stage en route to substantial, material knowledge.

With this understanding in hand, it became possible to tackle the second task, that of identifying the central difference between Kant and Husserl on the subject of analyticity. What I argued is that Kant and Husserl disagree as to the theoretical setting in which analytic truth is properly articulated. Whereas for Kant, it is necessary to articulate analytic truth within transcendental logic, because general logic does not reach as far as the objects that alone make judgments true, Husserl maintains that analytic truth *is* properly articulated within general, or formal logic, because formal logic is indeed a logic of objects. From Husserl's perspective, formal logic is implicitly oriented toward possible existents. Its laws are the a priori laws of objective givenness.

This in turn prompts number of significant departures from Kant. First, it means that Husserl can distinguish between two kinds of analytic judgments: he can talk about formal-ontological laws themselves (which are necessarily true) and he can talk the particular, empirically specific judgments that conform to them (which need not be true). Second, it means that Husserl can extend the range of the analytic beyond particular

judgments to entire judgment-systems: given a system of judgments that is held together by logical-ontological laws, it becomes possible to say that the system as whole is analytic. Third, Husserl can distinguish between different kinds of analytic evidence: he can distinguish between the eidetic insight that underwrites analytic truths and the grasp of syntactical form that underwrites analytically necessary propositions. Fourth and finally, Husserl can formulate a notion of empirical analytic judgment that escapes the problems that beset Kant's notion: since what makes an empirically specified judgment analytic, according to Husserl, is just its conformity to an analytic law, it does not ultimately matter whether the judgment holds a priori with respect to its object. In the conclusion to this study, to which I now turn, I will offer a summary of what we have seen over all six chapters, some remarks as to its overall significance, and some suggestions as to the future direction that this research might take.

Conclusion

In a sense, what I tried to do at the outset of this study was to preempt a critical response that might otherwise have lingered over the entire proceedings. Against the suspicion that the idea of analytic judgment is either uninteresting or unimportant or both, what I tried to do in Chapter 1 was to show that analytic judgment actually does have a valuable role to play in a Kantian context. In contrast to Kant's early modern predecessors, who recognize the formally identical judgment as a distinct kind of judgment, but who fail to give such judgments any real work do so, epistemologically speaking, Kant recognizes that a certain kind of formally identical judgment plays an indispensible role in the context of metaphysical inquiry. He says that before we are able to amplify our a priori concepts synthetically we are obliged to clarify the content of those concepts analytically.

Having established the methodological role of analytic judgment, I narrowed my focus in Chapter 2. Working on the basis of Kant's brief and disparate characterizations of analytic judgment, I spelled out exact properties that an analytic judgment is to have. Having done so, I remarked on a number of ways in which the resulting picture of analytic judgment might give rise to concern. For instance, I noted that it was not self-evident why an analytic judgment should have the status of an a priori truth: prima facie, the fact that the concept *body* contains the concept *extension* does not make the corresponding judgment, 'bodies are extended', true; this seems to depend, in addition, on the fact that bodies actually are extended. Likewise, I noted that it was not self-evident why an analytic judgment should necessarily be a subject-predicate judgment: since, according to Kant, we have an analytic judgment whenever we have a judgment whose negation is contradictory, it might look as if analytic judgments could come in any

number of logical forms. As regards the internal consistency of Kant's doctrine, I followed a number of commentators in noting that Kant seems ambivalent between a psychological and logical characterization of analyticity: he characterizes an analytic judgment as a judgment in which the predicate concept is 'thought' in the subject concept, and as a judgment in which the predicate concept is 'contained' in the subject concept. Finally, I remarked that Kant is unclear as regard the status of identical judgments. At some moments, Kant suggests that judgments like 'man is man' do not qualify as analytic, because they do not succeed in clarifying their subject concepts; at other times, he suggests that such judgment do count as analytic, seeming in that way to sideline the clarification criterion.

Setting the stage for an eventual solution to these concerns, I turned in Chapter 3 to the constituents of analytic judgments. I established that the conceptual constituents of analytic judgments necessarily have objective reality, and that analytic judgment becomes fully defensible if we stipulate that those concepts must have *a priori* objective reality. Second, I established that the conceptual constituents of analytic judgments are invariably related to a single source of representational content: empirical intuition, pure intuition, or the understanding. This became a way of explaining why a synthetic a priori judgment cannot simply become (or be made into) an analytic judgment. From Kant's perspective, this would not simply mean that a non-conceptual predicate had become a conceptual predicate; it would mean that a predicate originating with empirical or pure intuition had somehow become a pure concept of the understanding.

In Chapter 4, I drew on these results as a way of addressing the problems raised in Chapter 2. Thus, I showed that if we think of the conceptual constituents of analytic

judgments not merely as intensional unities, but as intensional unities that bear an intrinsic relation to objects, it is possible to explain why an analytic judgment can rise on its own steam to the level of truth: since the concept *body* is already involved, intrinsically, with the corresponding object, it follows that we can generate true judgments *about* those objects on the basis of conceptual analysis. Subsequently, I showed that if we foreground the object-relatedness of analytic judgments themselves, then it becomes possible to explain why non-subject-predicate judgments cannot be analytic: since such judgments necessarily fail to make claims concerning objects, according to Kant, such claims necessarily fail to intersect with the analytic-synthetic distinction. As for whether Kant's different characterizations of analytic judgment are ultimately contradictory, I showed that when we take account of what Kant is tacitly assuming about the conceptual constituents of analytic judgments, the appearance of contradiction disappears. We discover that when Kant talks about what is 'thought' in a concept, he has in mind what is brought to bear necessarily on the representation of a given object; and that when he talks about 'containment', he means exactly the same thing. This, finally, became a way of settling the status of identical judgments. I showed that since objects are not represented in terms of themselves, but in terms of a series of partial representations, there is no reason to think that a concept contains itself, thus no reason to think that judgments like 'man is man' are analytic.

In Chapter 5, I shifted focus to Husserl. I began by outlining two different ways of approaching Husserl's distinction between synthetic a priori and analytic law. Following the Third Logical Investigation, I showed that we can think of synthetic a priori law as law that governs phenomenal content in virtue of the *particular kind* of content that it is,

and that we can think of analytic law as law that governs phenomenal content *independently* of the kind of content that it is. Then, following indications in a variety of texts, I showed that we can think of synthetic a priori law as the law that governs the phenomenal whole (i.e. the phenomenal unity that is characterized by the "immediate bond" between its constituents) and analytic law as the law that governs the phenomenal aggregate (i.e. the phenomenal unity that is held together by the "unitary interest" directed at its constituents). Subsequently, I showed that analytic law extends also to the manifold, meaning the objective correlate of a deductive theory. Having charted the domain of ontological analytic law, I then turned toward what Husserl calls apophantic analytic law, which is analytic law insofar as it bears on the judgment or proposition. I showed that apophantic analytic law is effectively symmetrical with ontological analytic law. I argued that this symmetry reflects a more general symmetrical relationship between object and judgment. Finally, I turned to what Husserl calls the analytically necessary proposition, which is an analytic judgment having material content. Against the assumption that the analyticity of any such judgment is to be explained on the basis of formal structure alone, I showed that Husserl attributes the analyticity of propositions such as 'a king cannot exist without subjects' to a relation of linguistic entailment. After showing that no relation of linguistic entailment can be a priori, and hence that proposition like 'a king cannot exist without subjects' cannot actually be analytic, in the strict sense, I took up a final task—that of clarifying the relationship between conceptual analyticity and analysis. I showed that for Husserl, analytic laws are not the products of decompositional analysis, but of an analysis that draws out what is necessarily entailed in the concepts *object* and *proposition*.

In Chapter 6, I took up the relationship between Kant and Husserl on the subject of analyticity. Beginning with Husserl's disparate remarks on Kant's conception of analytic judgment, I suggested that Husserl fails to see where he stands relative to Kant on this matter, and so fails to locate the moment at which their respective theories actually diverge. By way of correcting for Husserl's failure in this regard, I suggest that what really distinguishes Husserl from Kant is not the claim that analytic truth amounts to priori truth of objects. What distinguishes Husserl from Kant, rather, is Husserl's contention that our a priori knowledge of objects is properly articulated within an entirely formal setting. Whereas for Kant, formal logic articulates the laws of thought only, Husserl contends that formal logic articulates the laws of objective givenness. In the remainder of the chapter, I show that this initial divergence ramifies in a number of theoretically significant directions. I show that it allows Husserl to distinguish between analytic law, which is the domain of strictly formal ontological truth, and analytic necessity, which is the domain of the material substantially judgments and materially substantial judgment-systems that *realize* formal-ontological truths. I show that this in turn motivates a distinction between different kinds of analytic evidence: on the one hand, Husserl picks up on and elaborates the Kantian conception of analytic evidence, according to which we grasp an analytic truth by grasping a particular representative instance; on the other hand, Husserl develops a purely syntactical conception of analytic evidence, according to which we grasp a relation of analytic necessity by grasping a judgment, or state of affairs at the level of pure form. Finally, I show that this enables Husserl to partially rehabilitate the idea of empirical analytic judgment. Whereas it was ultimately impossible to make Kant's empirical analytic judgments work, because such

judgments are inevitably responsive to the real features of real objects, meaning that such judgments are tacitly synthetic, Husserl can make the empirical analytic judgment work by interpreting such judgments on the model of the analytically necessary proposition. On this model, analyticity is precisely not a function of the necessary features of an objective correlate; it is a function just of the formal, syntactical structure of the proposition in question.

Naturally, there are a number of important tasks that I have been unable to undertake here. With respect to Kant, for instance, what is needed is a much clearer picture of the domain of analytic truth. Whereas I have confined my attention to a number of key examples of analytic judgment, because my concern has to clarify the nature, role, and possibility of analytic judgment, it will be necessary in future work to determine precisely what kinds of truths can be won from conceptual analysis alone. This will mean working through the pure concepts of the understanding; and it will mean working through the predicables of the pure concepts of the understanding, meaning the concepts that are derived from the pure concepts of the understanding and that populate Kant's later writings on the metaphysical foundations of the natural sciences.

In the case of Husserl, there is rather less urgency to task of actually describing the domain of analytic law. Indeed, since Husserl thinks that formal logic, mathematics, and formal geometry are analytic, it might look as if this task is already well underway. On the other hand, this very fact poses an important theoretical question—namely, how can Husserl defend the *uniqueness* of analytic law. Given that logic, for example, can take different, mutually incompatible forms, how can Husserl justify the claim that some

particular iteration of logic is analytic? How can he justify the claim that some particular iteration of logic articulates the a priori laws of objective givenness?

Another question that arises here concerns Husserl's relationship to his 19th and 20th century contemporaries on the issue of analyticity. On the one hand, it seems clear that in having identified analyticity with logical entailment, Husserl is quite close to thinkers such as Bolzano or Frege. One way of looking at the results of this study, however, would be say to that Husserl comes to this position from a rather different direction than Bolzano or Frege. Rather than simply collapsing the metaphysical dimension of analyticity and equating analyticity straightforwardly with a certain kind of validity, Husserl gets to this destination by way of a claim about the metaphysical significance of analyticity. Following Kant, Husserl identifies analyticity first and foremost with a priori objective truth. Having done so, he then comes to the narrower understanding of analyticity associated with Bolzano and Frege: he allows that certain propositions are valid in virtue of the fact that they instantiate pure analytic laws. Charting Husserl's exact course between Kant on side and Bolzano and Frege on the other represents an important and exciting direction for future research.

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